ARC INDUSTRIAL COATINGS

PROTECTION AGAINST CORROSION, ABRASION, IMPACT, AND CHEMICAL ATTACK





A World



of Protection

PROTECTION AGAINST CORROSION, ABRASION, IMPACT, AND CHEMICAL ATTACK

Chesterton[®] ARC Industrial Coatings, a brand of the 135-year-old A.W. Chesterton Company, has achieved a nearly four-decade proven global track record of enhancing critical industrial equipment and structures.

Innovation through Design

ARC Industrial Coatings are engineered using the latest technologies and advanced material formulations—from ceramic bead reinforcement to nanotechnology—to withstand the most challenging environments. Our highly experienced engineering staff is constantly at work on new, innovative coating solutions to meet the needs of industries' critical application environments.

Use ARC Industrial Coatings to:

- Revitalize worn equipment and damaged concrete surfaces previously considered irreparable
- Provide cost-effective, long-term corrosion prevention compared to exotic alloys and conventional coatings
- Increase operational efficiency frequently resulting in higher sustained output

Applications Expertise and Local Service

Backed by years of experience across a wide range of industries and applications, ARC's industrial coatings experts provide the applications insight and local service your company needs to ensure success.

You'll be supported by:

- An extensive global network of Sales Specialists supported, by local Stocking Distributors, In-Field Product Managers, Factory-Based Application Engineering, and Qualified Applicators
- Follow-up guidance for application and troubleshooting issues
- Regular training programs—including online webinars

Chesterton ARC Industrial Coatings is a total solutions approach that responds to your organization's needs no matter the location, scope, or challenge of the application. Contact us today to get started!



Application Matrix Table

	Product	Metal	Concrete	<60°C (140°F) Immersion	<90°C (200°F) Immersion	<130°C (266°F) Immersion	<150°C (302°F) Immersion	<180°C (356°F) Immersion	Concentrated Acid	Diluted Acid	Alkaline	Drinking Water	Mild Erosion	Severe Erosion	Moderate Abrasion	Severe Abrasion	Extreme Abrasion	Mild to Moderate Impact	Moderate to Severe Impact
SPECIALTY	5/5ES	Х		Х						Х	Х	Х	Х						
REPAIR	10	Х		Х						Х	Х		Х						
	855N	Х		Х						Х	Х			Х					
EROSION/	858	Х		Х						Х	Х			Х					
RESISTANT	HT-T	Х				Х				Х	Х			Х					
	HT-S	Х					Х			Х	Х			Х					
	BX1	Х			Х					Х	Х					Х		Х	
	BX2	Х			Х					Х	Х				Х			Х	
	BX5	Х		Х						Х	Х				Х			Х	
	I BX1	Х			Х					Х	Х					Х			Х
RESISTANT	I BX1 RC	Х			Х					Х	Х					Х			Х
	MX1	Х			Х					Х	Х						Х		Х
	MX2	Х			Х					Х	Х						Х	Х	
	MX FG	Х		Х	Х		Х			Х	Х						Х	Х	
	T7 AR	Х				Х			Х	Х	Х						Х	Х	
	S1PW	Х		Х						Х	Х	Х	Х						
	S1HB	Х	Х	Х						Х	Х		Х						ļ
	S2	Х		Х						Х	Х	Х		Х					
CORROSION	S4+	Х		Х					Х	Х	Х		Х						
CHEMICAL	SD4i	Х		Х						Х	Х			Х					
	S5	Х						Х		Х	Х		Х						
	S7	Х				Х			Х	Х	Х		Х						
	S7 AR	Х				Х			Х	Х	Х		Х	Х					
CONCRETE THIN-FILM	CS2		Х	Х						Х	Х	Х	Х						
	CS4		Х		Х				Х	Х	Х		Х						
	NVE VC		Х		Х				Х	Х	Х		Х						
	EG-1/EG-1 RED		Х	Х						Х	Х	Х						Х	
CONCRETE	791		Х	Х						Х	Х						Х		
HIGH-BUILD	988		Х	Х					Х	Х	Х						Х		
	NVE		Х		Х				Х	Х	Х						Х		

Disclaimer: This chart is an aid in product selection but should not be used as the sole method for product selection. Final product selection is the responsibility of the purchaser. All recommendations are based on ambient temperature exposures <32°C (90°F).

Table of Contents

Specialty Repair

5/5ES	6
10	7

Erosion/Corrosion-Resistant

855N	
858	9
HT-T	10
HT-S	

Abrasion-Resistant

BX1	12
BX2	13
BX5	14
I BX1	15
I BX1 RC	16
MX1	17
MX2	18
MX FG	19
T7 AR	20

Corrosion Chemical

S1HB	21
S1PW	22
S2	23
S4+	24
SD4i	25
S5	26
S7	27
S7 AR	

Concrete Thin-Film

29
31

Concrete High-Build

EG-1/ EG-1 RED	32
791	33
988	34
NVE	35

Overview

Accessories	36 -	- 37
ARC Composites	38 -	- 39

To use our Product Selector Tool to narrow your search of coatings for your application, go to: arcindustrialcoatings.chesterton.com or contact us:

Tel: +1 978 469 6202

ARC 5/5ES

Rapid-curing, emergency leak sealing coatings

Patches and seals leaks up to 3 mm (0.125 in) diameter

- Fares smooth pitted regions and cures to a hard film within 15 minutes
- Cures under water and on damp surfaces
- SES meets requirements of NSF 61 for cold water service

Application Areas

Flange faces

Pitted metal surfaces

- Leaking ductwork
 Cracked valves
- Scored hydraulic rams and pistons

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

= 5: 250 g kit covers 0.052 m² (0.056 ft²)

= 5ES: 114 g "stick" covers 20.00 cm² (3.10 in²)

Technical Data

5	Pull-off Adhesion	(ASTM D 4541)	246,8 kg/cm ² (24.2 MPa)	3,510 psi	
	Maximum Temperature	Wet Service	66℃	150°F	
	(Dependent on Service)	Dry Service	93℃	200°F	
5ES	Pull-off Adhesion	(ASTM D 4541)	300 kg/cm ² (29.4 MPa) 150 kg/cm ² (14.7 MPa)	4,200 psi 2,200 psi	
	Maximum Temperature	Wet Service	54℃	130°F	
	(Dependent on Service)	Dry Service	121℃	250°F	

Product Case Study

Challenge

lssue

Cracked and leaking valve required replacement. The repair would require taking plant off line

Goal

Avoid plant shutdown and repair valve until annual shutdown for complete replacement

Root Cause

Aging

Solution

Preparation

Temporary leak stops were installed

External of valve was mechanically roughened to SP11 (white metal)

Application

ARC 5ES was pressed into crack to temporarily stop leaks

Two alternating layers ARC 5 and reinforcing mesh were spread over crack



Valve leakage plugged with ARC 5ES.



Reinforcing mesh being placed.



Features and Benefits

Cures on damp surfaces

- Surface-tolerant for faster and easier application
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Low temperature cure capable
 - Cures down to 4°C (40°F)
- Compliant to NSF 61 standard for cold water service



Certified to NSF/ANSI 61

Results

Client Report

Repairs carried out in three hours without taking tank out of service

Tank stayed in service without leakage for six months, until annual shutdown allowed valve replacement

Savings:	\$123,800
ARC repair:	\$1,200
One day plant shutdown:	\$125,000

\$=USD



Repaired valve with ARC 5.



ARC 10

Machinable Polymer Alloy Coating for Repairing Surfaces Machined to Close Tolerances

A polymer alloy blend used to resurface scored and pitted regions which may be machined at a later stage to single tolerances

- Resurface worn metal parts which require machining to tolerances afterwards
- Resurface corroded and pitted metal surfaces
- Easily apply by trowel

Application Areas

- Flange faces
- Worn valve bodies
- Scored hydraulic rams
- Bearing housings
- Corroded stuffing boxes
- Shafts
- Pitted metal

Worn keyways Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

- 250 g kit covers 0.04 m² (0.45 ft²)
- 1.5 liter kit covers 0.50 m² (5.38 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	256.6 kg/cm ² (25.2 MPa)	3,650 psi
Maximum Temperature	Wet Service	66°C	150°F
(Dependent on Service)	Dry Service	93°C	200°F

Product Case Study

Challenge

Issue

Various areas with high metal loss were found when inspecting a salt water pump, which affected performance

Goal

Resurface internals and recover efficiency; Protect equipment from corrosive operating conditions; Reduce 10-month delivery time for a new pump

Root Cause

The corrosive conditions added to content of solids in pumped fluid caused corrosion and erosion



Pump body as inspected.

Solution

Preparation

Decontaminate and grit blast to Sa 2.5 with 3 mil (75 –125 µm) profile

Application

Weld metal plate in cut water and apply ARC BX1 at 250 mil (6 mm)

Apply ARC 10 at 80 – 160 mil (2 – 4 mm) on flanges and machine to level

Apply ARC 858 at 250 – 315 mil (3 – 8 mm), to mold wear ring seats and smoothen all internal surface

Apply ARC S2 in a two-coat system at 20 - 24 mil (500-600 µm) on all internals



Repair being performed, body and cover.



Features and Benefits

- Resistant to a wide spectrum of chemicals including alkalis, acids, and solvents
 - Covers a broad range of chemical exposures
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- High build viscosity
 - Suitable for rebuilding pitted and scored surfaces to a thickness of more than 6 mm (.24 in) in a single coat

Results

Client Report	
New pump:	\$126,800
New impellor and accessories:	\$39,016
ARC solution:	\$24,215
Total savings:	\$63,569
Delivery time for new pump: Repair time with ARC:	300 days 20 days

\$=USD



Reconstructed and finished pump.



SPECIALTY REPAIR





ARC 855N

Silica-Free, Brush and Roll Grade Coating with Moderate Ceramic Reinforcement Content

100% solids, reinforced thin-film coating to protect structures against chemical attack and corrosion

- Meet the requirements of Mil Spec 32171
- Protect metal against chemical attack and corrosion
- Apply by brush or roller

Application Areas

- Deck coating
 Machine spaces
- AFFF stations
- Elevator rooms

Packaging and Coverage

Nominal, based on 2 coats at 375 µm (15 mil) thickness

= 1.5 liter kit covers 2.00 m² (21.53 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	352.7 kg/cm ² (34.6 MPa)	5,020 psi
Maximum Temperature	Wet Service	65°С	149°F
(Dependent on Service)	Dry Service	120°С	248°F

Product Case Study

Challenge

lssue

Heavy traffic and chemical exposures damaged deck coating, increasing slip and fall hazards in machine space area

Goal

Reduce slip and fall hazard

Root Cause

Hydraulic oils and hydrocarbon-based fuels compounded by heavy foot traffic



Previous coating one year after installed.

Solution

Preparation

Surfaces were power tool cleaned to SP11 (white metal) with 2+ mil (50 μm) profile

Structural steel

Chain lockers

Application

30 mil (750 μ m) of ARC 855N applied by roller and then broadcast with 20 – 40 grit Al₂O₃ for non-slip surface.

Excess abrasive was removed and a 15 mil (375 $\mu m)$ sealer coat of ARC 855N was applied



High traffic regions coated for non-slip.



Features and Benefits

Meets Mil Spec. 32171

- Certified for on-board applications
- Low viscosity
- Easily applied
- High adhesive strength
 - Prevents under-film corrosion
- 100% solids, no VOCs, no free isocyanates
- Enhances safe use

Results

Client Report

System complies to Mil Spec 32171 high durability deck coating surfaces

80% reduction in slip hazards noted

Savings:	\$22,000
Annual ARC coating:	\$43,000
Annual coatings before ARC:	\$65,000

\$=USD



High traffic regions coated for non-slip.



EROSION/CORROSION-RESISTANT

ARC 858

Abrasion Resistant Rebuilding and Faring Composite

100% solids, thick film, ceramic-reinforced abrasion control epoxy compound

- Upgrade new and old equipment exposed to abrasion, corrosion, or chemical attack
- Rebuild surfaces with erosion-resistant protection outperforming weld overlays
- = Fill grooves, pits, etc. in metal prior to overcoating with another ARC product

Application Areas

Impellers and blades

- Pump casings
- Back plates
 - Heat exchangers
- Transport screws
 Valves

5 liter kit covers 6.67 m² (71.76 ft²)

16 liter kit covers 21.33 m² (229.63 ft²)

Packaging and Coverage

Nominal, based on a 750 µm (120 mil) thickness

- = 250 g kit covers 0.20 m² (2.21 ft²)
- 940 ml cartridge covers 1.25 m² (13.50 ft²)
- 1.5 liter kit covers 2.00 m² (21.53 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	478.5 kg/cm ² (47 MPa)	6,810 psi
Maximum Temperature	Wet Service	70℃	158°F
(Dependent on Service)	Dry Service	160℃	320°F



Challenge

lssue

Failed coal tar coating resulted in pitting corrosion on face of gate. Corrosion kept gates from actuating and sealing correctly. Leakage down spillway channel creates icing in winter months

Goal

Prevent further corrosion to gate; Promote improved actuating and sealing

Root Cause

Galvanic corrosion

Solution

Preparation

Grit blast to Sa 2.5 with 3 mil (75 $\mu\text{m})$ angular profile

Application

Apply ARC 858 to rebuild pitted areas

Topcoat with two coats of ARC S2 at total dry film thickness of 20 mil (500 μ m) to provide smooth, flow efficient surface

Results

Client Report

After two years in operation, no signs of corrosion and erosion

After applying the ARC solution, the spillway gates opened and closed effectively

Further icing issues reduced



Corrosion and pitting on the spillway gate.



Pitting repaired using ARC 858.



Gate topcoated with 2 coats of ARC S2.



Features and Benefits

- High build single coat applications
- Quick applications
- High adhesive strength
 Reduces under-film corrosion
- 100% solids, no VOCs, no free isocyanates
 Enhances safe use

Features and Benefits

- Strong, tough, durable
 - Reduces downtime
- Incorporates fine-graded sizes of reinforcements
 - Permeation and blister resistance
- Spark testable per NACE SP0188 Easy inspection
- High adhesive strength
 - Provides reliable performance No under film corrosion
- = 100% solids, no VOCs, no free isocyanates
 - Enhances safe use

Results

Client Report

Exceeded 18-month maintenance cycle goal

Inspection at 30 months showed no signs of corrosion damage

Savings:	\$61K
ARC repair cost (30 months):	\$22K
(30 months):	\$83K
Prior maintenance cycle cost	

\$=USD



Corroded divider plates.

Solution

Preparation

Decontaminate surfaces Grit blast to Sa 2.5 with 3 mil (75 µm)

angular profile

Application

Apply ARC HT-T at 40 – 60 mil (1 – 1.5 mm) to fare smooth pitted surfaces

Critical sealing surfaces required machined molds to achieve required tolerances



Repaired divider plates.



Completed tube sheet.



Pressure vessels

- Tanks and vessels
- Crystalizers

Packaging and Coverage

Easily apply by trowel

Application Areas Oil/water separators

Oil/gas separators

ARC HT-T

Nominal, based on a 750 µm (30 mil) thickness

5 liter kit covers 6.67 m² (71.76 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	316.9 kg/cm ² (31.1 MPa)	4,510 psi
Maximum Temperature	Wet Service	110°C	230°F
(Dependent on Service)	Dry Service	150°C	302°F

Spark Testable High Temperature Trowelable Erosion Control 100% solids, ceramic-reinforced abrasion-resistant epoxy that protects metal against mild

abrasion, corrosion, and erosion in elevated temperature immersion

Perform in immersed aqueous solution conditions up to 110°C (230°F)

Heat exchangers

Rebuild and protect new and old metal equipment

Product Case Study

Challenge

Issue

Severe corrosion affected performance, resulting in reduced production capacity from well heads. Reduced reliability required weld repair of heat exchangers every 15 - 18 months

Goal

Increase operation reliability to more than 18 months; Eliminate weld repair and protect heat exchanger intervals

Root Cause

High temperature sea water with high chlorides accelerated corrosion of unprotected steel

EROSION/CORROSION-RESISTANT

ARC HT-S

High Temperature Corrosion Resistant Coating

100% solids, high temperature resistant, ceramic-reinforced abrasion-resistant epoxy that protects metal against mild abrasion, corrosion, and erosion in elevated temperature immersion

- Perform in immersed aqueous solution conditions up to 150°C (302°F)
- = Replace exotic alloys, engineered plastics, ceramics, and conventional coatings
- = Easily apply by roller, brush, squeegee, or airless spray

Application Areas

- Oil/water separators
- Oil/gas separators
- Heat exchangers Fans and housings
- Tanks and vessels Pumps and valves

Packaging and Coverage

Nominal, based on a 375 µm (15 mil) thickness

- 5 liter kit covers 6.67 m² (71.76 ft²)
- 16 liter kit covers 21.33 m² (229.63 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	365.4 kg/cm ² (35.9 MPa)	5,200 psi
Maximum Temperature	Wet Service	150°C	302°F
(Dependent on Service)	Dry Service	175°C	347°F

Product Case Study

Challenge

Issue

Internal tank corrosion is limiting its service life

Goal

Increase equipment life; Protect internal surface against corrosive operating conditions

Root Cause

Operation conditions with condensate (demineralized water) and temperature (110°C/230°F) are highly corrosive for the carbon steel tank

Solution

Preparation

Wash surfaces with hot water

Grit blast to Sa 2.5 with 3 mil (75 – 125 µm) angular profile

Application

Apply ARC HT-S in a two-coat system at 20 – 24 mil (500 – 600 μm) final thickness



Features and Benefits

Strong, tough, durable

- Reduces spare part inventory Reduces downtime
- Incorporates fine-graded sizes of reinforcements
 - Resistant to cold wall delamination and permeation
- Spark testable per NACE SP0188
- High adhesive strength to metal
 - Reduces under-film corrosion
- 100% solids, no VOCs, no free isocyanates
- Enhances safe use

Results

\$124,500
-\$10,000
\$134,500

Additional Benefits

Demineralized water quality meets specification requirements

Client Follow Up Client plans to coat next tank

\$=USD



Corroded tank internal surface.



Product mixing



Coated tank internals.



ARC BX1

Trowel-Grade Coating for Coarse-Particle, Severe-Sliding Wear

100% solids, modified epoxy formulation reinforced with a proprietary blend of ceramic beads and powders for extremely abrasive sliding wear environments

- Protect areas exposed to sliding abrasion
- Replace ceramic tiles and rubber linings which can disbond more easily
- Easily apply by trowel

Application Areas

Bins and silos Slurry pumps Wear plates Blow lines

- Chutes
- Transport screws

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

- 1.5 liter kit covers 0.25 m² (2.69 ft²)
- 20 kg kit covers 1.37 m² (14.70 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	238.9 kg/cm ² (23.5 MPa)	3,400 psi
Maximum Temperature	Wet Service	95℃	203°F
(Dependent on Service)	Dry Service	205°C	400°F

Solution

Preparation

angular profile

Application

Grit blast to Sa 2.5 with 3 mil (75 µm)

Apply ARC BX1 at an average thickness

of 6 - 8 mm (250 - 320 mil) only to the

regions exposed to sliding abrasion

Product Case Study

Challenge

Issue

Buckets on continuous excavator were wearing out in less than six months. Traditional weld repair resulted in stress fatique failure

Goal

Client sought to extend repair interval by 200% and eliminate heat-associated stress fatigue

Root Cause

Heat-related stress fatigue was weakening grain boundaries, leading to cracks and accelerated abrasive wear



Repair life of 6 months with hard face welding.

ARC BX1 coating applied to the boarders between the teeth.



Features and Benefits

- High ceramic loading level
 - Extends life of equipment exposed to coarse particle wear
- Chemically resistant polymer matrix
 - Covers a broad range of chemical exposures
- High adhesive strength
 - Resists disbonding
- High build single coat
 - Allows for vertical build capability to most substrates
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use

Results

Client Report

Heat-related stress fatigue minimized by using ARC BX1

Service life increased from 6 to more than 12 months

At 20-month maintenance period only 5 kg of ARC BX1 was needed to repair localized damage

ARC BX1 coating has been applied to three more excavators in same manner at this mine site



After 20 months only 5 kg of ARC BX1 was needed for repair.



ABRASION-RESISTANT

ARC BX2

Trowel-Grade Coating for Fine-Particle, Moderately Abrasive-Sliding Wear

100% solids, modified epoxy formulation reinforced with a proprietary blend of ceramic beads and powders for fine particle, abrasive sliding wear environments

- Protect areas exposed to moderate sliding abrasion
- Resurface damaged metal in lieu of more traditional weld overlays
- Easily apply by trowel

Application Areas

- Slurry pumpsHydropulpers
- Transport screws
- Slurry pipes
- Wear plates
- Hydrocyclones

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

- 1.5 liter kit covers 0.50 m² (5.38 ft²)
- = 5 liter kit covers 1.67 m² (17.94 ft²)
- = 20 kg kit covers 2.82 m² (30.32 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	238.2 kg/cm ² (23.4 MPa)	3,390 psi
Maximum Temperature	Wet Service	95°C	203°F
(Dependent on Service)	Dry Service	205°C	400°F

Solution

Preparation

Application

Abrasive blast surface to Sa 2.5 with

3 mil (75 µm) angular profile using

Apply ARC BX2 at 3 mm (120 mil)

rotating lances using ARC BX2

Dynamically balance impellers and

aluminum oxide media

Apply ARC 855 as a primer

Product Case Study

Challenge

lssue

Flue gas desulfurization units are highly corrosive and hard on equipment

Goal

Extend the life of absorber agitators made with expensive, super duplex alloy to operate in corrosive and abrasive desulfurization environments

Root Cause

Abrasive lime slurry at high velocity in high chloride environment

Mixer during operation.



Mixer and lance with the applied ARC 855 and ARC BX2 coatings.



Features and Benefits

- High ceramic loading level
 - Extends life of equipment exposed to fine particle wear
- High adhesive strength
 Resists disbonding
- Low mixed viscosity
 - Eases mixing, application and finishing
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use

Results

Client Report Periodic inspection reports support a minimum of 3 years performance before maintenance



Design was modified to include additional support for the mixer and lance.



ARC Industrial Coatings

ARC BX5

Ultra-Fast Curing Coating for Fine-Particle Moderate Sliding Wear

Rapid curing, 100% solids, ceramic-reinforced multi-component coating, formulated for moderate sliding wear and abrasion caused by fine particles

- Cure under adverse conditions with maximum adhesion
- Quickly patch and repair worn equipment and structures
- Easily apply by trowel

Application Areas

- Pneumatic conveyors
- Screw conveyors
- Transport fans
- Cyclones and hoppers

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

- 0.75 liter kit covers 0.25 m² (2.69 ft²)
- 2.5 liter kit covers 0.83 m² (8.97 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	224.8 kg/cm ² (22.1 MPa)	3,200 psi
Maximum Temperature	Wet Service	60°C	140°F
(Dependent on Service)	Dry Service	120℃	248°F



Challenge

lssue

Ceramic tile lasts 4 – 6 months before cracking and delamination occurs. Exposed steel wears through and requires weld repair before retiling.

Goal

Extend patch repair to greater than 30 days; Reduce maintenance cycle time to less than 12 hours

Root Cause

Brittle fracture failure of ceramic tiles results from impact of coal; Acidic wash water corrodes steel.



Damage to existing ceramic tiles caused unscheduled shutdown and loss of production.

Solution

Preparation

Grind down residual ceramic epoxy with power tool

Wear plates

Pipe elbows

Decontaminate surface with solvent (MEK)

Roughen with a rotary grinding tool

Application

Apply ARC BX5 at 120 – 200 mil (3-5 mm) to steel and cove up onto the ceramic tile

Apply ARC S2 at 12 mil (300 $\mu m)$



Installation of ARC BX5.



Features and Benefits

- Rapid cure chemistry
 - Quick return to service
- Surface-tolerant formulation
 - Bonds to moist and suboptimally prepared substrates
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use

Results

Client Report

ARC repairs completed in eight hours

ARC solution provided over six months service before a touch-up was required

Due to success, client has selected ARC coatings as "patch repair" for all tile-lined chutes and lines



ARC BX5 with ARC S2 topcoat cures rapidly, allowing fast return to service of chute.



ARC I BX1

Impact-Resistant and Severely Abrasive Wear-Resistant Epoxy Composite Coating

100% solids, impact-resistant, ceramic-reinforced epoxy/urethane hybrid coating for severe abrasive wear and high impact resistance

- Protect surfaces exposed to impact ≤50 ft lb. (≤68 Nm) and sliding abrasion
- Provide a longer lasting alternative to rubber lining and ceramic tiles
- Resist direct as well as reverse impact forces

Application Areas

- Hoppers/chutes
- Discharge plates
- Slurry elbows Rubber insert repair

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

= 20 kg kit covers 1.39 m² (14.93 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	222.7 kg/cm ² (21.9 MPa)	3,170 psi
Maximum Temperature	Wet Service	95℃	203°F
(Dependent on Service)	Dry Service	205℃	400°F

Product Case Study

Challenge

Issue

Failure of a rubber and tile lined chute caused leaks and unscheduled outages with lost production costs of more than \$115K/day

Goal

Plant sought increased life cycle of chutes

Root Cause

Seams in rubber lining exposed to highly abrasive slurry discharge caused rubber tears and delamination

Discharge flume with damaged tile/rubber liners.

Solution

Preparation

Pressure wash and decontaminate surfaces

Power tool clean to Sa 2.5

Application

Apply ARC I BX1 to prepared surfaces to mate up to damaged rubber and tile sections

Use radiant heat lamps to accelerate cure to less than 24 hours

Results

Client Report

Over 200 hours of increased production as a result of utilization of ARC coatings

Rubber (material/labor/downtime): \$1.5M ARC (material/labor/downtime): \$417K

Net savings:	\$1,083M
	4 . /

ARC I BX1 and now ARC I BX1 RC are standard repair items in plant









ABRASION-RESISTANT





Features and Benefits

- Urethane-modified formulation
 - Resists repeated direct and reverse impact forces
- No free isocyanates, 100% solids, no VOCs
 - Enhances safe use
- High ceramic loading level Resists moderate to
 - severe impact



Applying ARC I BX1.





ARCIBX1 RC

Rapid-Curing, Trowel-Grade Coating for Coarse Particle Severe Sliding Wear with Impact

A rapid-curing, high impact-resistant, 100% solids, epoxy/urethane hybrid coating with ceramic reinforcements for severe wear regions and impact

- Cure guickly allowing a faster turnaround with repairs
- Coat and protect surfaces exposed to moderate-to-severe impact and sliding abrasion Rapidly repair/replace cracked ceramic tile or rubber lining where impact forces
- combined with sliding wear tear seams and edges
- Easily apply by trowel

Application Areas

- Rubber pump liners
- Discharge plates

Rubber-lined agitators Vibrating screen decks

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

- 1.5 liter kit covers 0.25 m² (2.69 ft²)
- = 2.5 kg kit covers 0.42 m² (4.49 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	238.2 kg/cm ² (23.4 MPa)	3,390 psi
Maximum Temperature	Wet Service	95°C	203°F
(Dependent on Service)	Dry Service	205°C	400°F

Product Case Study

Challenge

Issue

Coal pulverizers experience unscheduled shutdowns due to impact damage to tile liner. Alternative coatings lasted less than one month

Goal

Extend repair cycle to a minimum of 6 months

Root Cause

High velocity coal fines impacting brittle ceramic tile

MPS Coal Pulverizer.

Damaged pulverizer walls.



Features and Benefits

Urethane-modified formulation

 Resists repeated direct and reverse impact for reliable performance

- Modified rapid cure curing agent
 - Reduces cure time to less than 3 hours, getting equipment back online faster
- = 100% solids, no VOCs, no free isocyanates
 - Enhances safe use

Results

Client Report

Inspection after one month showed 95% of product thickness remained with zero delamination

Tile repairs:	\$50,000/year
Alternative coatings:	\$10,000/year
ARC I BX1 RC:	\$3,500/year
Savings on tiles:	\$46,500/year
Savings on coating:	\$6,500/year

\$=USD



Coated pulverizer after 1 month.



Pipe elbows Tile-lined chutes

Solution

Preparation

(50 µm profile)

Application

remaining tile

Power tool clean to SP 11 with 2+ mil

Apply 240 - 375 mil (6 - 9 mm) of

to damaged areas, butting up to

ARC I BX1 RC, on 12-hour shutdown

ABRASION-RESISTANT

ARC MX1

Trowel-Grade Coating for Coarse Particle Extreme Sliding Wear and Impact

100% solids, ceramic-reinforced multi-component system, formulated for extreme impact and sliding-wear abrasion caused by medium-to-coarse particle flow

- Protect surfaces against both, dry coarse particle erosion and wet slurry abrasion
- Provide a longer lasting alternative to rubber linings and ceramic wear tiles under impact
- Replace CD4, Ni-hard or hardox as wear-resistant material

Application Areas

- Pulverizers
- Fans/blowers/cyclones
- Hoppers and silos
- Ceramic tile
- Pumps and pipe elbows
 deflector hoods

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

- 6 kg kit covers 0.37 m² (3.97 ft²)
- = 20 kg kit covers 1.23 m² (13.23 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	224.8 kg/cm ² (22.1 MPa)	4,200 psi
Maximum Temperature	Wet Service	95°C	203°F
(Dependent on Service)	Dry Service	205°C	400°F

Product Case Study

Challenge

lssue

Hard face weld overlay was not meeting 12-month maintenance cycle. Associated repair costs every 12 months equal \$4.5K

Goal

Restore and protect conveyor screw from abrasion, improving reliability; Eliminate need for weld overlay on entire flight.

Root Cause

Severe abrasion from bark with up to 10% sand abrade drum and flyghts

Solution

Preparation

Grit blast to Sa 2.5 with 3 mil (75 $\mu m)$ profile

Application

Apply ARC MX1 at 6 mm (1/4 in) to flyght faces and shaft

Rubber-lined

deflector hoods

Conveyor screws

Reinforce flyght tips only with hardened weld overlay

Results

Client Report

Maintenance cycle increased from less than 12 months to more than 72 months

Estimated 72-month savings per screw: \$27K

\$=USD



Abraded screw conveyor.



ARC MX1 applied and tips welded.



After 12 months: client identified no issues with performance.



Features and Benefits

- Tough, ceramic-reinforced coating resists broad range of slurries
 - Extends life of equipment exposed to coarse particle wear
- Advanced hybrid polymer matrix
 - Resists repeated high impact force
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use



ARC MX2

Trowel-Grade Coating for Fine Particle Severe Sliding Wear

100% solids, ceramic-reinforced multi-component coating, formulated for extreme sliding-wear and abrasion caused by fine particles

- Protect surfaces against both dry fine particle erosion and wet slurry abrasion
- Restore worn equipment to near-original condition
- Easily apply by trowel

Application Areas

- Cyclones
- Valves
- = Agitators = Mixers
- Cleaner cones
- Pipe spools

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

- = 2.5 liter kit covers 0.83 m² (8.97 ft²)
- 16 liter kit covers 5.33 m² (57.41 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	238.9 kg/cm ² (23.5 MPa)	3,400 psi
Maximum Temperature	Wet Service	95℃	203°F
(Dependent on Service)	Dry Service	205℃	400°F

Product Case Study

Challenge

lssue

Mine production impacted by insufficient pump performance to meet required 300 M³/hour flow

Goal

Avoid purchasing additional pumps with an acquisition cost of \$25K and operational cost of \$3.5K; Meet flow demand and reduce maintenance and operational costs

Root Cause

After 20,000 hours operation in acidic mine water with entrained solids degraded pump internals and critical tolerances



Bank of dewatering pumps.

Solution

Preparation

Surfaces grit blasted to Sa 2.5 with 3 mil (75 µm) angular profile

Application

Apply ARC 858 to rebuild pump back to tolerances where abrasion and erosion had damaged casing and impeller

Apply ARC MX2 in high-wear regions to address abrasive suspended solids

Apply final topcoat of ARC 855 for additional corrosion protection and to improve flow efficiency



Pumps rebuilt with ARC 858 and ARC MX2. Topcoated with ARC 855.



Features and Benefits

- Tough, ceramic-reinforced coating resists broad range of slurries
 - Extends life of equipment exposed to coarse particle wear
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Low viscosity formulation
 - Simplifies application
 - Lowers installed cost

Results

Client Report

After repair, pumps operated at more than 94% of OEM efficiency with 3% less energy consumed

Cost Avoidance

(per pump):

Total first year savings	
Associated energy saving:	\$3.29K
ARC material and labor:	\$6.80K
New pump installation/operation:	\$28.50K

\$ \$18.41K

\$=USD



Coated sections of pump.



ABRASION-RESISTANT

ARC MX FG

Abrasion Resistant Coating for Fine Particle Wear

ARC MX FG is a trowel applied 100% solids, zero VOC, ceramic reinforced epoxy coating designed for protecting surfaces against dry and wet slurry abrasive flow. This two part system complies to 21 CFR 175.300 and is suited for direct food contact.

- Protect surfaces against both dry fine particle erosion and wet slurry abrasion
- Restore worn equipment to near-original condition
- Easily apply by trowel

Application Areas

= Cyclones = Valves AgitatorsMixers

Cleaner conesPipe spools

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

- 1.5 liter kit covers 0.5 m² (5.4 ft²)
- 5 liter kit covers 1.67 m² (18 ft²)
- 16 liter kit covers 5.34 m² (57.5 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>211 kg/cm ² (>20.7 MPa)	>3,000 psi
Maximum Temperature	Wet Service	65°С	149°F
(Dependent on Service)	Dry Service	130°С	266°F

Product Case Study

Challenge

lssue

Severe abrasion to internals of combi mixer required annual removal of the mixer to maintenance shop where welding repairs were carried out.

Goal

To reduce or eliminate requirements to weld repair mixer and carry out any future repairs on site by using an FDA compliant wear-resistant liner.

Root Cause

Severe abrasion from corn milling residues used in animal feed processing result in severe abrasion to mixer internals.

Solution

Preparation

Decontaminate and abrasive grit blast to SP10 cleanliness with 3 – 5 mil angular profile.

Application

ARC MX FG was trowel applied between 6 – 9 mm (0.25 – 0.325") and then two alternating color coats of ARC S1PW were applied as a smoothing coat and a wear indicator coat to identify when the top 20 – 30 mils of coating have been removed.

Results

Client Report

After 90 days in service client inspected and noted minimal wear to ARC S1PW coat and no sign of any wear to ARC MX FG layer.

Client has initiated steps to add ARC coatings to future combi mixer repairs to their worldwide operations.



Signs of abrasive wear to internals of mixer.



Tack welding expanded metal mesh for increased structural integrity.



ARC MX FG coated mixer internals.



Features and Benefits

- Tough, ceramic reinforced coating resists broad range of slurries
 - Extends life of equipment exposed to fine particle wear
- Complies to 21 CFR 175.300 for Condition C and less severe exposures for:
- Type II, III IVa, IVb, V and VIII Foods

19

CHESTERTON. Global Solutions. Local Service.

INDUSTRIAL COATINGS

ARC T7 AR

Abrasion Resistant Barrier Coating for High Temperature and Chemical Exposures

A ceramic reinforced novolac vinyl ester, protective barrier coating for high-temperature, chemical exposures where aggressive, abrasive conditions may be present

- Resist a wide range of inorganic, as well as organic, acids and hydrocarbon-based chemical compounds
- Resists abrasion
- Easily apply by trowel

Application Areas

Flue gas ductsProcess tanks

Agitator bladesSlurry pumps

Packaging and Coverage

Nominal, based on a 3 mm (120 mil) thickness

20.4 kg kit covers 2.50 m² (27.00 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	158 kg/cm² (15.5 MPa)	2,249 psi
Maximum Temperature	Wet Service (water)	135°C	275°F
(Dependent on Service)	Dry Service (continuous)	180°C	356°F

Product Case Study

Challenge

Issue

Rubber-lined exhaust elbows clog up with gypsum and wear out in less than six months requiring unit shutdown to replace

Goal

Extend repair cycle and reduce gypsum buildup

Root Cause

Carryover contains gypsum and highly corrosive phosphoric acid

Solution

PreparationDamaged rubber lining removed

Grit blast to Sa 2.5 with 3 mil (75 $\mu m)$ angular profile

Pipes

Rubber-lined

reactor tanks

Application Apply ARC T7 AR to 240 – 360 mil (6 – 9 mm) Apply veil coat of ARC T7 AR VC



Client Report

Elbows lasted 6 months and localized high-wear region was repaired at nominal cost

Additional product thickness to be applied in future elbows

Savings:	\$23,000
ARC lining:	\$52,000
Annual rubber lining:	\$75,000

\$=USD



Flash cooler with exhauster.



Exhaust elbow in shop laydown.



Repaired unit ready for install.



Features and Benefits

- Chemical-resistant polymer matrix
 - Resists a broad spectrum of organic and inorganic acids

Incorporates high-strength ceramic reinforcements

- Permeation-resistant
- Abrasion-resistant
- Toughened resin structure
 - Resists cracking and disbondment under thermal cycling conditions



ARC S1HB

High Build, Single Coat, Edge-Retentive Barrier Coating

ARC S1HB is a micro-glass reinforced, amidoamine cured modified epoxy lining for the protection of metallic and cementitious surfaces from corrosive exposures.

- Protects metal and concrete surfaces
- Apply to damp or dry surfaces
- One coat system

Application Areas

- Crude oil storage tanks
 - e tanks Wastewater clarifiers
- Chemical storage tanks
 Grit chambers
- Thickener tanks
- Wet wells/junction boxes
 Manholes
- Pipelines/penstocks

Packaging and Coverage

Nominal, based on 750 µm (30 mil) DFT

- 1.125 liter kit covers 1.5 m² (15.9 ft²)
- = 60 liter kit covers 80 m² (850 ft²)

Technical Data

Pull-off Adhesion Metal Concrete	>309 kg/cm ² (>30 MPa) >28 kg/cm ² (>2.7 MPa)	4400 psi 400 psi	
Maximum Temperature	Wet Service	52°C	125°F
(Dependent on Service)	Dry Service	80°C	175°F

Product Case Study

Challenge

lssue

Concrete in wet well and sludge tanks was attached by H2S gas leading to loss of coverage and dislodgement of aggregate.

Goal

To protect against further aggregate lass and preserve the wet well structure.

Root Cause

Hydrogen sulfide gases from biological corrosion case micro-biological corrosion of concrete.

Solution

Preparation

Surfaces were high pressure water blasted and verified to have pH between 7 – 10.

Acceptable for use with

cathodic protection

systems

600 liter kit covers 800 m² (8500 ft²)

Surface then were sweep sandblasted to ICRI CSP#3 finish

Application

ARC S1HB was applied in one single coat/ multiple passes of the gun to a final wet film thickness of >3 mm (120 mils)

Results

Client Report

Lining was installed to three separate structures over an eight day period.

After greater than six years, no signs of further concrete loss have been noted during inspection

Repair Costs

Conventional concrete repairs: \$18,000/12 days

ARC S1HB repairs: \$21,500/6 days

\$=USD



Wet well location.







Features and Benefits

High build capability

- Allows for one coat application
- Greater than 70% edge retention
- 2:1 mix ratio
 - Simplifies heated plural component spray application
- Fluorescent pigmentation visible under UV light source
 - Allows for in process QC



Surface of wet well with final coat of ARC S1HB.



ARC

ARC S1PW

Brush-Roll-Spray Applied Moderate Chemical Resistant Coating - NSF 61 Certified

100% solids, reinforced thin film coating to protect structures against erosion, corrosion, and chemical attack. ARC S1PW is certified for cold water service requiring NSF 61 certification

- Provide excellent barrier protection against erosion, corrosion, and chemical attack
- Meet all requirements of NSF 61 for potable, cold water service
- = Easily apply by brush, roller, or plural component spray

Application Areas

- Crude oil storage tanks
- Chemical storage tanks Thickener tanks

Packaging and Coverage

Nominal, based on a 375 µm (15 mil) thickness

- = 1125 ml cartridge covers 3.0 m² (32.3 ft²)
- 5 liter kit covers 13.33 m² (143.52 ft²)
- 16 liter kit covers 42.67 m² (459.26 ft²)

Technical Data

Pull-off Adhesion (Metal)	(ASTM D 4541)	477 kg/cm ² (46.8 MPa)	6,790 psi
Maximum Temperature (Dependent on Service)	Wet Service (NSF 61) Dry Service (General) Wet Service (General)	23°C 62°C 52°C	75°F 144°F 126°F

Product Case Study

Challenge

Issue

Exposed aggregate in sand filter was promoting algae growth, leading to increased vessel draining and cleaning

Goal

Seal surface and apply coating to reduce algae growth

Root Cause

Exposed aggregate promotes algae retention

Solution

Preparation

Surfaces grit blasted to CSP3 finish

Application

Skim coat of cementitious mortar applied to resurface concrete.

Two coats of ARC S1PW applied at 15 – 20 mil (375 – 500 µm) in alternating colors



Installing ARC S1PW coating.



Features and Benefits

- Ceramic-reinforced
 - Resists erosion
- Low viscositv
- Easy to apply
- Excellent adhesion
 - No under-film corrosion

Compliant to NSF 61 standard for cold water service

 Non-contaminating formulation



Certified to NSF/ANSI 61

Results

Client Report

Vessel has been in continuous service for over seven years

Algae cleaning can be easily done with low pressure hoses

Cleaning time reduced from two times per month to three times per year—saving over 200 man-hours per year



Sand filter in service.



Drained sand filter vessel.

- Wastewater clarifiers
- Cooling water systems Potable water pumps,
 - valves, and fittings

ARC S2

Resistant Coating

abrasion, and corrosion

Application Areas

Fans and housings

Tank lining

CHEMICAL-RESISTANT



Features and Benefits

- High-gloss, low-drag surface
 - Improves material flow Enhances efficiency
- High adhesive strength Prevents under-film corrosion
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Low viscosity: brush, roller, or spray applied coating
 - Easy to apply

CHESTERTON



Preparation

Grit blast remove old coal tar epoxy Grit blast to Sa 2.5 with 3 mil (75 µm) profile

Application

Apply ARC S2 stripe coat to weld seams

Results

Client Report

ARC coating providing more than six years of service life (three times more than coal tar solution)

Elimination of two thickener clean outs provide additional savings

Annualized Coating Solution

Previous coal tar (material and labor): \$12K ARC repair (material and labor): \$6K

Savings per year:

\$6K

23

\$=USD



ARC \$2 still in excellent condition.

Apply two coats of ARC S2 at 15 – 20 mil (375 - 500 µm)/coat



Slurry thickener at a major South American mine.



Alternating colors of ARC S2.







Brush-Roll-Spray Grade, Ceramic-Reinforced Erosion

Apply by brush, roller, airless or plural component spraying

100% solids, ceramic-reinforced thin film coating to protect structures against erosion,

- Hoppers
- Pumps and valves

Packaging and Coverage

Nominal, based on a 375 µm (15 mil) thickness

Protect against corrosion and erosion Provide improved material flow properties

- = 1125 ml cartridge covers 3.00 m² (32.29 ft²)
- 1.5 liter kit covers 3.94 m² (42.4 ft²)
- 5 liter kit covers 13.33 m² (143.52 ft²)
- 16 liter kit covers 42.67 m² (459.26 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	463 kg/cm² (45.5 MPa)	6,590 psi
Maximum Temperature	Wet Service	52°C	125°F
(Dependent on Service)	Dry Service	80°C	175°F

Product Case Study

Challenge

Issue

Previously applied coal tar coatings failed prematurely at two years, resulting in unanticipated floor corrosion. Corrosion protection of six years required for maintenance cycle

Goal

Reduce pitting corrosion; Extend maintenance cycle to six years

Root Cause

Thickener solution, containing sulfates, chlorides, and abrasive slurry attacks unprotected steel

ARC S4+

Brush-Roll-Spray Applied, Severe Chemical-Resistant Coating

100% solids, advanced-reinforced thin film coating to protect structures against extreme chemical attack

- Protect against extreme chemical attack in immersion
- Apply by brush, roller, airless or plural component spraying

Application Areas

- Exhaust gas ductwork
- Chemical storage tanks
- Heat exchangersFans and housings
- Chimneys and stacks

Tank linings

Packaging and Coverage

Nominal, based on a 375 µm (15 mil) thickness

- = 1125 ml cartridge covers 3.00 m² (32.30 ft²)
- = 5 liter kit covers 13.33 m² (143.52 ft²)
- = 16 liter kit covers 42.70 m² (459.30 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	330 kg/cm ² (32.4 MPa)	4,700 psi
Maximum Temperature (Dependent on Service)	Wet Service Dry Service Post Cure Wet Service	60℃ 150℃ 95℃	140°F 300°F 203°F

Product Case Study

Challenge

lssue

Contamination from aging rubber lining created water quality issues that impacted steam-generation equipment

Goal

Eliminate sulfur leaching into water; Apply barrier coating that is resistant to demineralized water and regeneration chemicals

Root Cause

Aged vulcanized rubber lining leaches sulfur into demineralized water

Solution

Preparation

Hydro blast to remove rubber lining

Grit blast to Sa 2.5 with 3 mil (75 $\mu m)$ angular profile

Application Apply ARC 858 to restore and

smooth surface

Apply two coats of ARC S4+ at total dry film thickness of 25 – 30 mil (630 – 750 $\mu m)$



Features and Benefits

- Multi-functional chemistry
 Resists concentrated chemicals
- High cross-link density
 - Permeation-resistant
 - Improved thermal stability
 - Enhanced mechanical properties

Spark testable per NACE SP0188

- Easy post-application inspection
- Facilitates quality assurance
- 100% solids, no VOCs, no free isocyanates
- Enhances safe use

Results

Client Report

After coating, filled vessels require no flush or rinse to remove residual contamination

In operation, the vessels showed sulfur levels not greater than 1 ppb

Lining has been in service for more than 5 years



Removal of the rubber lining in progress. Blistering of the lining is visible.



External view of the tank.



After proper surface preparation, ARC S4+ was applied in a two-coat system.



ARC SD4i

High Temperature Ceramic-Reinforced Erosion Resistant Coating

100% solids, advanced-reinforced thin film coating to protect structures and equipment in extreme immersion services

- Protect against corrosion and erosion
- Provide extended protection in aggressive chemical immersion services
- Apply by brush, roller, or airless or plural component spraying

Application Areas

- Flotation cells
- Thickener tanks
- Hydrocyclones
 Slurry pipes
- Slurry tanks
- Bins, hoppers, and silos

Packaging and Coverage

Nominal, based on a 375 μm (15 mil) thickness

- = 1125 ml cartridge covers 3.00 m² (32.30 ft²)
- 5 liter kit covers 13.33 m² (143.52 ft²)
- = 16 liter kit covers 42.67 m² (459.26 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	241 kg/cm ² (23.7 MPa)	3,430 psi
Maximum Temperature	Wet Service	65℃	149°F
(Dependent on Service)	Dry Service	120℃	248°F

Product Case Study

Challenge

lssue

Hydrocyclone on offshore platform corrodes rapidly without protection, requiring repeated weld overlay repairs

Goal

Improve the efficiency of separation by preventing corrosion and metal loss/ damage; Avoid equipment replacement with a super duplex stainless steel unit at a cost of greater than \$65K

Root Cause

High chloride and solids concentration of solids and hydrocyclone turbulence



After cleaning and decontamination, ARC 858 is applied to fill and smooth surface.

Solution

Preparation

Grit blast to Sa 2.5 with 3 mil (75 μm) angular profile

Treat to remove residual chlorides

Application

Apply ARC 858 to areas of severe corrosion pitting and rebuild smooth surface

Apply two coats of ARC SD4i with dry film thickness of 30 - 40 mil (750 - 1000 μ m) per coat for abrasion and corrosion protection and enhanced flow



After application of ARC 858, ARC SD4i is applied for protection and enhanced flow efficiency.



Features and Benefits

- Abrasion-resistant surface
 Extends equipment life
- High gloss, low drag surface
 Improves material flow
- 100% solids, no VOC's, no free isocyanates
 - Enhances safe use
- Low viscosity, thin film, brush, roller, and spray applied
 - Easy to apply

Results

Client Report

Unit is operational for more than 4 years since ARC solution. Inspection at 3-year point showed no signs of coating failure or pitting

Total Savings:	\$48,800
Labor to install:	\$13,000
ARC material:	\$3,200
Replacement:	\$65,000

Payback vs. Replacement = less than 3 months

\$=USD



After cleaning and decontamination, ARC 858 is applied to fill and smooth surface.



ARC S5

Corrosion Protection in High Temperature Immersion

Sprayable coating for high temperature immersion up to 180°C (356°F). Ideal for elevated temperature process vessels, and equipment exposed to heated fluids where high temperature differentials may exist.

Performs in immersed aqueous solution conditions up to 180°C (356°F)

Application Areas

Separators	
Deaerators	

- Fans and housings
 Ducting
- Tanks and vessels
 Heat exchangers

Packaging and Coverage

Nominal, based on a 750 µm (30 mils) thickness

- = 5 liter kit covers 6.67 m² (71.76 ft²)
- = 16 liter kit covers 21.33 m² (229.63 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	365.4 kg/cm ² (35.9 MPa)	3,500 psi
Maximum Temperature	Wet Service	180°C	356°F
(Dependent on Service)	Dry Service	210°C	410°F

Product Case Study

Challenge

Issue

Ultra high-pressure water blasting is required every 6 – 12 months to remove mineral scale buildup. This periodic blasting damages protective lining leading to reduced equipment availability.

Goal

Provide a protective barrier coating offering elevated immersion resistance to chemicals and permeation and reduce scale formation.

Root Cause

At elevated temperatures mineral solids lead to scale formation on internal surfaces, thus reducing flow and production rates.



Spool sections.

Solution

Preparation

All surfaces were low-pressure water blasted with demineralized water to remove soluble salts, followed by grit blasting to Sa 2.5 cleanliness with profile of 3 + mil (75+ μ m).

Application

ARC S5 was applied in a single coat at 20 - 25 mils ($508 - 635 \mu$ m) and allowed to cure for two days at 25° C (77° F) prior to being put back into service.



Features and Benefits

Tested to NACE TM0185

- 180°C (356°F)
- 100 Bar (1450 psi)

Incorporates fine-graded sizes of reinforcements

- Permeation resistant
- Resistant to cold wall delamination
- Resists thermal-mechanical shock
- Survives rapid decompression

Spark testable per NACE SP018

 Easy post-application holiday inspection

Results

Client Report

After 27 months in service, the unlined sections of the spool showed signs of corrosion and scale buildup requiring UHPW blasting.

Sections coated with ARC S5 showed no signs of corrosion, and the minimal scale present could be easily removed with a rag or low-pressure water blasting.



Dark scale formation on unlined section.



ARC S5 prevented corrosion and scale formation after 27 months.



ARC S7

High Temperature and Chemical Resistant Novolac Vinyl **Ester Coating**

A low-VOC, novolac vinyl ester, sprayable protective barrier coating for high-temperature chemical exposures where thermal cycling conditions may be present

Resist thermal cycling conditions up to 180°C (356°F)

Application Areas

Flue gas ducts

tanks

- Storage and process
- Gas/gas heat exchangers Electrostatic precipitators
- Chimney stack liners Bag filters

Packaging and Coverage

Nominal, based on a 375 µm (15 mil) thickness

14 liter kit covers 37.33 m² (401.86 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	166 kg/cm ² (16.3 MPa)	2,370 psi
Maximum Temperature	Wet Service	135°C (water)	275°F
(Dependent on Service)	Dry Service	180°C (continuous)	356°F

Product Case Study

Challenge

Issue

Previously specified coating failed within 12 months. Cost of alloy cladding was not justified. If left unprotected, exposed steel would fail due to corrosion within 12 months

Goal

Extend service life to more than 24 months with no evident corrosion

Root Cause

Condensing acids at the cold areas of the ductwork caused heavy corrosion on framework of the duct

Solution

Preparation

Decontaminate surface Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

Apply ARC S7 by brush as stripe coat to all weld seams

Airless spray apply ARC S7 at total dry film thickness of 20 mil (500 µm)

Results

Client Report

After extensive testing and approval, ARC S7 was selected by OEM as new lining system

Six units were coated with ARC S7 and shipped to job sites for installation

More than 1200 m² of ARC S7 has been installed in bag houses for OEM client

Original coating started to fail within 12 months equipment.



Bag house protected with ARC S7 in service over 2 years with no failures.



Features and Benefits

- Chemical-resistant polymer matrix
 - Resists a broad spectrum of organic and inorganic acid
- Incorporates fine-graded sizes of reinforcements
- Permeation-resistant

Toughened resin structure

 Resists cracking and disbondment under thermal cycling conditions

High dielectric resistivity

 Allows user to inspect with high voltage spark testing per NACE SP0188

CHESTERTON

of application.



ARC S7 AR

High Temperature, Chemical and Erosion Resistant Novolac Vinyl Ester Coating

ARC S7 AR is a novolac vinyl ester based, ceramic reinforced, protective coating for high temperature, chemical exposures where erosive particulates and thermal cycling conditions may be present. ARC S7 AR industrial coating is designed to:

- Resists erosion
- Resists thermal cycling conditions up to 180°C (356°F)
- Resists a wide range of inorganic as well as organic acids and hydrocarbon based chemical compounds
- Easily applied by airless spray system

Application Areas

Flue gas ducts	Electrostatic precipitators	Bag filters
Gas/Gas heat exchangers	Chimney stack liners	

Packaging and Coverage

375 μm (15 mil) WFT yields 300 μm (12 mil) DFT

= 14 liter kit covers 36.75 m² (395.57 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	238.9 kg/cm ² (23.5 MPa)	3,400 psi
Maximum Temperature	Wet Service	135°C (water)	275°F
(Dependent on Service)	Dry Service	180°C (continuous)	355°F

Product Case Study

Challenge

lssue

An unlined exhaust fan was exposed to corrosive flue gases with suspended erosive particlates. The fan sustained severe corrosion and erosion damage impacting balance and performance. Operating temperatures were <120°C (250°F) with up to 4% suspended particlates in the form of fly ash. Client was required to shut down fan and hydro-wash fans every 8 – 10 weeks at a cost of \$10K per shutdown.

Goal

Reduce shutdown time for hydrowash maintenance.



ID Fan in paint shop.

Solution

Preparation

ARC S7 AR was recommended due to its ability to resist high temperatures and erosion.

Application

Three coats of ARC S7 AR were applied to the fan vane tips to a toal dry film thickness of 0.75 - 0.9 mm (30 - 35 mils). The balance of the fan received two coats to a total dry film thickness of 0.6 - 0.75 mm(25 - 30 mils).

After coating cured, the fans were dynamically rebalanced.



ARC S7 AR with CHP Catalyst.



Features and Benefits

Chemical resistant polymer matrix

 Resists a broad spectrum of organic and inorganic acid

Incorporates fine-graded sizes of ceramic reinforcements

Abrasion resistant

Toughened resin structure

- Resists cracking and disbondment under thermal cycling conditions
- Cured films have low surface energy
 - Reduces particle attachment

Results

Client Report

A fan that was coated in 2018 has shown <5% film thickness loss. Due to finish quality improvements, dust attachment was reduced so that shut down for hydrowash have been cut to once every 24 weeks >30K per year.

Based on results, client coated second fan with ARC S7 AR in 2019



Dynamically balanced ARC S7 AR coated fan.



ARC CS2

General Purpose Thin-Film Epoxy Coating

100% solids, mineral-reinforced, wear-resistant, low-viscosity epoxy

- Protect new and old concrete subject to mild chemical and/or physical damage
- Replace tiles, outlast paints and other concrete coatings
- = Apply by roller, brush, squeegee, or airless or heated plural component spray

Application Areas

- Concrete tanks
- Water intakes and dams Sumps, drains, and pits
- Process floor areas
- Pump and equipment bases

Packaging and Coverage

Secondary containment

Nominal, based on a 500 µm (20 mil) thickness

I6 liter kit covers 32.00 m² (344.45 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>35.1 kg/cm ² (>3.4 MPa)	>500 psi Concrete Failure
Maximum Temperature	Wet Service	52°C	125°F
(Dependent on Service)	Dry Service	93°C	200°F

Product Case Study

Challenge

Issue

Coating destroyed in secondary containment bund after spills of aluminum sulfate

Goal

Protect concrete and other structures from chemical attack; avoid cost of lost product and potential fines

Root Cause

Reinforcement content of previous coating allowed wicking of aggressive chemicals; Substrate attack caused failure

Solution

Preparation

HP water blast 600 bar (8500 psi) Decontaminate with IMS II

Application

Apply ARC 797 to prime Apply ARC 988 to pitch to grade Apply ARC CS4 to seal floor Apply ARC CS2 to protect walls



Client Report More than 3 years without damage to the coating Avoided possible fines Avoided annual reconstruction costs Avoided first year recoat costs: \$8.5K

3 year savings for recoating: \$25.5K



Failed coating after spills.

🔊 CHESTERTON



Cleaned and prepared surface.



Applying ARC CS4 topcoat.



Features and Benefits

- = 100% solids, no VOCs, no free isocvanates
 - Enhances safe use
- Can be applied to dry or damp concrete
 - Saves time by allowing application under a variety of conditions
- Surface modified mineral reinforcements
 - Excellent resistance to permeation
- Adhesion exceeds cohesive strength of concrete

ARC CS4

Mineral-Reinforced Severe Chemical Resistant Concrete Coating

100% solids, highly chemical-and wear-resistant low viscosity, thin film 100% Novolac epoxy

- Protect new and old concrete subject to severe chemical attack
- Apply by roller, brush, squeegee, or airless or heated plural component spray

Application Areas

- Chemical tanks
- Secondary containment
- Sumps, drains, and pits
- Neutralization tanks
- Chemical process floors
 Pump foundations

Packaging and Coverage

Nominal, based on a 500 μ m (20 mil) thickness

- = 5 liter kit covers 10.00 m² (107.64 ft²)
- = 16 liter kit covers 32.00 m² (344.45 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>35.1 kg/cm ² (>3.4 MPa)	>500 psi Concrete Failure
Maximum Temperature (Dependent on Service)	Wet Service (continuous) Wet Service (intermittent) Dry Service	40°C 52°C 80°C	105°F 125°F 175°F

Product Case Study

Challenge

lssue

Severe corrosion to failing acid brick-lined concrete basin resulted in leaks and environmental fines

Goal

Avoid future fines and return basin to chemical-resistant status

Root Cause

Sulfuric and hydrochloric acids



Basin in petrochemical complex.

Solution

Preparation

Old acid brick was removed as well as damaged concrete

Surfaces abrasive grit blasted and alkaline washed

Application

Cementitious mortar used to resurface damaged concrete

All surfaces coated with two coats of ARC CS4 at 15 – 20 mil (375 – 500 $\mu m)/coat$



Surface preparation.



Features and Benefits

- Resistant to broad range of acids and caustics
 - Easy coating selection
- Durable high-performance coating
 - Outlasts conventional coatings
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Adhesion exceeds cohesive strength of concrete

Results

Client Report

Repairs carried out over 2-week period Basin operated for more than six years

Savings:	\$103,000
ARC lining:	\$47,000
Acid brick estimate:	\$150,000
before repairs were required	
	,

\$=USD



ARC CS4 final application.



ARC NVE VC

Stand-Alone Applied Concrete Coating System

2-layer system, high-performance modified novolac vinyl ester coating for concrete where extreme chemical resistance is required

- Serve as a stand-alone, thin film coating
- Protect against a wide range of concentrated acids, organic solvents, and alkalis
- = Easily apply by brush, roller, squeegee, or airless spray

Application Areas

- Battery rooms
- Pickling/plating lines
- Bleaching areas Sumps, trenches, and pits
- Chemical containments
 - Pickling rooms

Packaging and Coverage

Nominal, based on a 500 µm (20 mil) thickness

System Kit covers 9.60 m² (103.30 ft²)

Technical Data

Pull-off Adhesion (AS)	FM D 4541) >38 kg	/cm ² (3.8 MPa) 55	1 psi
Maximum Temperature Wet	130°C	26	5°F ⊃°⊑

Features and Benefits

- Resistant to concentrated chemicals including alkalis, acids and solvents
 - Selection with confidence
 - Covers a broad range of chemical exposures
- Specialized blend of reinforcements
 - Long-term resistance to permeation

Product Case Study

Challenge

Issue

Fiberglass mat-reinforced polyester lining cracked and delaminated from process floor in CIO, mixing room in bleach plant

Goal

Replace failed lining with more chemically resistant liner

Root Cause

Spills of 15% CIO,

Solution

Preparation

Surfaces decontaminated then surface ground to CSP3 finish

Application

Damaged concrete re-pitched to drain at 2° slope using cementitious mortar

ARC NVE primer applied followed by two coats of ARC NVE VC at 15 - 20 mil (375 - 500 µm)/coat

Results

Client Report

Coated areas have been in continuous service for over 4 years + - - - - -

Fiberglass*:	\$35,000
ARC repairs:	\$27,000
Savings:	\$12,000
*Lasts one year	



Delaminated fiberglass mat polyester.



ARC NVE VC in service.



ARC NVE VC in service.



\$=USD







INDUSTRIAL COATINGS

ARC EG-1/EG-1 RED

Fast-Setting Grout Resurfacer to Repair/Patch

Concrete Surfaces

ARC EG-1/ EG-1 RED is a 100% solids, three-part grout which uses a low viscosity, moisture tolerant epoxy chemistry that is reinforced with a dried blend of graded and pigmented silica aggregates.

- Resurface concrete damaged by a chemical attack or mechanical stress
- Fill voids prior to topcoating
- Bond to damp concrete
- Sets fast allowing rapid overcoating
- Applies easily by trowel

Application Areas

- Fill spalled areas
- Build up low areas
- Form curbs and pads
 Create slope to drains
- Patch machinery Footprint damage

Packaging and Coverage Nominal, based on a 12 mm (480 mil) thickness

- Patch Kit covers 0.75 m² (8.1 ft²)
- Bulk Kit covers 2.25 m² (24.2 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>35.1 kg/cm ² (>3.4 MPa)	>500 psi Concrete Failure
Maximum Temperature	(Water Immersion) Continuous	66°C	150°F
(Dependent on Service)	(Water Immersion) Intermittent	93°C	200°F

ARC EG-1 Application



Damaged concrete surface.



ARC EG-1 applied to concrete.



Features and Benefits

- Low viscosity resin
 - Mixes and applies easily
- Pigmented aggregate blend
 - Closely matches the color of concrete
- Bonds to dry or damp concrete
 Allows for quick repairs
- Rapid curing allows for quick return to service



ARC 791

High-build Concrete Resurfacer Coating

100% solids, high-build, quartz (SiO_2)-reinforced, highly chemically resistant, modified epoxy coating that can bond to damp concrete, concrete resurfacer

- Resurface concrete damaged by chemical attack or mechanical stress
- Bond to damp concrete, making substrate impermeable for aggressive chemicals
- Apply to vertical substrates at nominal DFT of 6 mm (250 mil) using ARC 797 primer

Concrete tanks/sumps

= Food processing plants

Easily apply by trowel

Application Areas

- Acid and alkali spill areas
- Bottling lines
- Wastewater treatment

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

System Kit covers 4.10 m² (44.13 ft²)

Bulk Kit covers 16.70 m² (180.00 ft²)

Trenches and drains

Tile repointing

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>35.1 kg/cm ² (>3.4 MPa)	>500 psi Concrete Failure
Maximum Service Temperature (Dependent on Service) (Water immersion)	Wet Service (continuous) Dry Service (continuous)	66°C 93°C	150°F 200°F

Product Case Study

Challenge

lssue

Uncoated concrete neutralization pit for boiler feed water treatment required protection against dilute acid used in demineralization process

Goal

Provide long-term protection of the concrete

Root Cause

As part of the demineralization process, pits, drains, and plinths are exposed to flush water with HCl and NaOH

Solution

Preparation

Allow concrete to reach full 28-day cure

Mechanically scarify surface to CSP3 finish

Application

Apply ARC 791 coating to mild areas of exposure at .250 in (6.4 mm)

Apply ARC 988 coating to aggressive areas of exposure at .250 in (6.4 mm)

Results

Client Report

ARC was in service for 5 years without problem until plant was closed for economic reasons







ARC specified by plant engineer.



Environmental conditioning required during application.



Features and Benefits

- Coefficient of thermal expansion comparable to concrete
 - Resists cracking and delamination
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Bonds to dry or damp concrete
 - Saves time
 - Versatile
- Adhesion exceeds cohesive strength of concrete



ARC 988

Trowel-Applied, Quartz-Reinforced Concrete Resurfacer

Highly chemically resistant, 100% solids, pure novolac resin-based, quartz-reinforced concrete resurfacer

- Resurface new and rebuild old concrete degraded by chemical or physical damage
- Protect against concentrated acids (98% sulfuric acid), organic solvents, and alkalis
- Easily apply by trowel

Application Areas

- Battery rooms
- Pickling/plating lines
- Sumps, trenches, and pits
 Chemical containments
- Pump foundations
- Concentrated acid areas

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

System Kit covers 4.10 m² (44.13 ft²)

Bulk Kit covers 16.70 m² (180.00 ft²)

Technical Data

Pull-off Adhesion	(ASTM D 4541)	>35.1 kg/cm ² (>3.4 MPa)	>500 psi Concrete Failure
Maximum Temperature (Dependent on Service) (Water immersion)	Wet Service (continuous) Dry Service (intermittent)	66°C 93°C	150°F 200°F

Product Case Study

Challenge

lssue

Current coatings used in chemical storage areas were failing within 2 years of application; Exposed concrete results in increased risk of environmental spills

Goal

Provide no less than 2 years of protection to concrete infrastructure, reducing risk of environmental spill

Root Cause

Continuous exposure to 54% H₃PO₄ attacks cement paste in concrete leading to concrete degradation



ARC 988 coated pump base: good condition after four years.



Preparation

Neutralize and thoroughly scarify concrete

Application

Trowel apply 6 mm (.25 in) of ARC 988

Recut expansion joints and fill with chemically resistant joint sealant

Features and Benefits

- Resists concentrated chemicals, including alkalis, acids and solvents
 - Covers a broad range of chemical exposures
- Coefficient of thermal expansion comparable to concrete
 - Resists cracking and delamination
- 100% solids, no VOCs, no free isocyanates
 - Enhances safe use
- Bonds to dry or damp concrete
 - Saves time
 - Versatile
- Adhesion exceeds cohesive strength of concrete

Results

Client Report

Coating performing without failure for more than 3 years

Based on success, a further 10,000 $m^2 \ (100,000 \ ft^2)$ has been coated with ARC products

Benefits

Protection of concrete containment

Reduced risk of environmental spills and associated fines

ARC 988 coated processing areas.



ARC 988 coated floor areas.



CONCRETE HIGH-BUILD

ARC NVE

Three-Layers of Protection

Three-layer system, high-performance, quartz-reinforced novolac vinyl ester lining for concrete applications requiring extreme chemical resistance and moderate abrasion and impact protection

- Replace acid-resistant tiles or overlayments of phenolic, furan, polyester, or concrete
- Protect against concentrated acids, organic and inorganic acids, solvents, and alkalis

Application Areas

- Battery rooms
- Pickling/plating lines
- Bleaching areas
 Sumps, trenches, and pits
- Chemical containmentsChemical loading stations

Packaging and Coverage

Nominal, based on a 6 mm (240 mil) thickness

System Kit covers 9.70 m² (104.00 ft²)

Technical Data

Pull-off Adhesion (Excellent - 100% Concrete Failure)	(ASTM D 4541)	>39 kg/cm² (3.86 MPa)	>560 psi
Maximum Temperature	Wet Service (continuous)	135°C	275°F
(Dependent on Service)	Dry Service (continuous)	200°C	392°F

Features and Benefits

- Resists concentrated chemicals, including alkalis, acids and solvents
 - Covers a broad range of chemical exposures
- Coefficient of thermal expansion comparable to concrete
 - Resists disbondment
- Deep penetrating primer system
- Promote high adhesion to concrete

Product Case Study

Challenge

lssue

Failing tile liner and underlying concrete contaminating stock product; Outage for repairs was only 72 hours

Goal

Resurface and seal chest walls and prevent future contamination of pulp stock

Root Cause

Hot bleached stock attacked mortar and grout lines causing tile delamination and attack of underlying concrete



Chest wall after tile removed and blasted.

Solution

Preparation

Old tile removed, then surfaces abrasive grit blasted to CSP 3 finish

Application

ARC NVE primer applied followed by 3 coats of ARC NVE topcoat at 120 – 200 mil (3 – 5 mm)/coat; Total dry film thickness of 360-600 mil (9 – 12.5 mm)

Final veil coat of ARC NVE VC applied at 15 - 20 mil (375 - 500 μ m)



Installing ARC NVE coating.

Results

Client Report

Repairs carried out over 3 days

Chest is operational now for more than 1 year with no issues

\$22,000
\$47,000
\$65,000

*Tile repair would have only addressed 25% of area

\$=USD



Applying ARC NVE sealer coat.



Dispensing Systems

Pneumatically operated dispensing and spraying systems promotes accurate mixing and product placement with minimal waste for those ARC coatings packaged in dual component cartridges. Auto-orienting, resealable caps, auto-lock static mixers, and snap-on atomizing spray heads compliment this approach.

Simple to Use

- Same gun is adjustable for all ARC products in cartridge configuration
- Easy, drop-in side loading
- Retraction trigger automatically releases cartridge when empty
- Optimized static mixer design ensures complete mix at head
- Resealable, auto-aligning end caps extend shelf life of partially used cartridges
- Low air volume demand allows for convenience of plant air (dry and oil-free) use

ARC Pneumatic Gun

The heart of the system is the ergonomically correct, pneumatically actuated gun with adjustable mix ratio setting capabilities for 1:1, 2:1, 3:1, and 4:1 mix ratios. This single unit allows for application of ARC 858, S1PW, S2, SD4i and S4+, all of which are configured to the two-component cartridge fill package. Its sealed unit construction is virtually maintenance-free and its adjustable fluid and atomizing air regulators allow you to optimize flow and atomizing air to meet your specific application requirement. The dual-stage trigger with integrated atomizing air regulator and piston feed allows for single-point adjustment. This unit is ideal for shop applications as well as smaller field installations and touch ups for larger jobs.



ARC Static Mixers

Atomizing mixers for ARC S1PW, S2, SD4i, and S4+ utilize a unique four-chamber static mixer which is highly efficient and reduces mixer length, enabling increased mobility and ease of use. These mixers have a quick lock alignment capability to ensure proper attachment to cartridge. They are available with preconfigured straight pattern tips.

Dispensing tips for ARC 858 utilize a helical mix chamber design for consistency and completeness of mix. These mixers have a quick lock alignment capability to facilitate proper attachment to cartridge.



Application Tools

Having the right tool to apply the product is always a benefit. Now you can buy the same tools supplied with each kit of ARC coating. Made of tough, injection molded polyethylene these tools are designed to provide comfort, ease, of use, and a high quality finish.

ARC Mixing Sticks

These 4.7 cm (12 in) long mixing sticks have an ergonomically designed handle to provide increased comfort when mixing highly viscous products. A double chamfered chisel design on the end as well as sides improves use as a mixing stick when using the tool to scrape unmixed product off the bottom or side wall of a container or when used as an application tool.

ARC Applicators

Made from injection-molded polyethylene, these flexible tools are ideal for applying and finishing high-viscosity grade ARC coatings.

ARC Coating Brushes

These 15 cm (6 in) long injection-molded polyethylene handled brushes have 5 cm (2 in) wide nylon bristle brushes which are cut back for stiffness, making them ideal for applying 100% solids ARC coatings.





ARC Composites



* Complies to FDA guidelines for direct food contact according to 21 CFR 175.300







Global Solutions, Local Service

Since its founding in 1884, the A.W. Chesterton Company has successfully met the critical needs of its diverse customer base. Today, as always, customers count on Chesterton solutions to increase equipment reliability, optimize energy consumption, and provide local technical support and service wherever they are in the world.

Chesterton's global capabilities include:

- Servicing plants in over 113 countries
- Global manufacturing operations
- More than 500 Service Centers and Sales Offices worldwide
- Over 1200 trained local Service Specialists and Technicians

Visit our website at arcindustrialcoatings.com



Chesterton ISO certificates available on chesterton.com/corporate/iso

Technical data reflects results of laboratory tests and is intended to indicate general characteristics only. AW. Chesterton Company disclaims all waranties express or implied, including waranties of merchantability and fitness for a particular purpose. Liability, if any, is limited to product replacement only. Any images contained herein are for general illustrative or aesthetic purposes only and are not intended to convey any instructional, safety, handling or usage information or advice respecting any product or equipment. Please refer to relevant Safety Data Sheets, Product Data Sheets, and/or Product Labels for safe use, storage, handling, and disposal of products, or consult with your local Chesterton sales representative.

© 2021 A.W. Chesterton Company.

® Registered trademark owned by A.W. Chesterton Company in USA and other countries, unless otherwise noted.





A.W. Chesterton Company 860 Salem Street Groveland, MA 01834 USA Telephone: 781-438-7000 Fax: 978-469-6528 arcindustrialcoatings.com chesterton.com Form No. EN22689 ARC Catalog – English 03/21