



SUPERCHEM® Epoxy Coating Technology

Revolutionary long-term protective solution for harsh operating conditions



SUPERCHEM® Epoxy Coating SQ1

SUPERCHEM® Epoxy Coating SQ1 is characterized by complete solidification, low viscosity, and freedom from organic solvents. It forms a thin-film layer, can be sprayed at room temperature, and provides excellent surface protection, safeguarding the substrate from erosion, corrosion, and chemical attack. It is primarily suitable for large-area anti-corrosion and anti-erosion applications and can replace traditional coatings, special alloys, engineering plastics, and ceramics. The anti-sagging thickness is 250µm(at 25°C), and the maximum operating temperature is 80 °C(dry service).



Features & Benefits

- **Safe and Simple**
 - Complete solidification; safe and VOC-free
 - No specialist tools required
- **Superior Durability**
 - No cracking, distortion, or stress failures
 - Extreme compressive strength
 - Superior chemical resistance
- **High Adhesive Strength**
 - Prevents undercoating corrosion
 - Prevents coating peel-off
- **Industrial-Grade Abrasion Resistance**
 - Extends equipment life
 - Cuts spare parts costs
 - Minimizes unplanned downtime

Technical Data

Cured Density, g/cm ³	1.50 ± 0.05
Compressive Strength, MPa	≥ 90
Flexural Strength, MPa	≥ 50
Shore Hardness D	≥ 80
Chemical Resistance (immersion in 30% sulfuric acid, 10% hydrochloric acid, 10% nitric acid, and 10% sodium hydroxide, respectively; 7 days at 25°C)	No abnormalities

Mix Ratio (Weight Ratio) A:B=5:1

Application Areas

- Chemical and Petroleum storage tanks
- Pumps and Valves
- Water tanks and Water troughs
- Steel structures, Columns and Supports
- Pipes and Fittings
- Impellers and Pump casings

Application Methods

Scraping, brushing, rolling , or spraying

Coverage & Packaging

Calculate based on a thickness of 0.3mm

10kg: 22.2 m² / 20kg: 44.4m² Packaging: 10kg/set Colors: Black or Gray



SUPERCHEM® Epoxy Coating BSQ1

SUPERCHEM® Epoxy Coating BSQ1 is a fully solidified product with low viscosity and no organic solvents. It forms a medium-to-thick film coating and provides excellent surface protection, safeguarding the substrate from erosion, corrosion, and wear. It is mainly used for large-scale corrosion and erosion prevention, offering resistance to both gaseous and liquid erosion. This coating is suitable for upgrading new and old equipment and facilities exposed to corrosive or chemically aggressive environments. The anti-sagging thickness is 500µm(at 25°C), and the maximum service temperature is 120°C(dry service).



Features & Benefits

- **Safe and Simple**
 - Complete solidification; safe and VOC-free
 - No specialist tools required
 - Saves repair time
- **Durable and Versatile**
 - No shrinkage, expansion, or distortion
 - Bonds tenaciously to any rigid surface
- **High Adhesive Strength**
 - Prevents underfilm corrosion
 - Outstanding chemical resistance
- **High Abrasion Resistance**
 - High compressive strength
 - Extends equipment life
 - Reduces spare parts costs

Technical Data

Cured Density, g/cm ³	1.55 ± 0.05
Compressive Strength, MPa	≥ 80
Tensile Strength, MPa	≥ 30
Impact Strength, kg·m	≥ 0.5
Flexural Strength, MPa	≥ 50
Shore Hardness D	≥ 80
Abrasion Resistance (1kg/1000r), g	≤ 0.100
Chemical Resistance (immersion in 30% sulfuric acid, 10% hydrochloric acid, 10% nitric acid, and 10% sodium hydroxide, respectively; 7 days at 25°C)	No abnormalities

Mix Ratio (Weight Ratio) A:B=8.6:1

Application Areas

- Tanks and vessels
- Pump casings
- Impellers and blades
- Structural steel
- Pipes and fittings
- Valves
- Heat exchangers

Application Methods Scraping, brushing, rolling, or spraying (if conditions permit)

Coverage & Packaging Calculate based on a thickness of 0.5mm
1kg: 1.2 m² / 10kg: 12m² Packaging: 10kg/set Colors: Black or Gray



SUPERCHEM® Epoxy Coating GQM

SUPERCHEM® Epoxy Coating GQM is a fully solidified, organic solvent-free, thick-film coating made from a ceramic-reinforced, wear-resistant polymer material. It is primarily designed to upgrade new and existing equipment exposed to abrasion, corrosion, or chemical erosion. When used in conjunction with SQ1/BSQ1, it can prefill surface defects such as pits, sand holes, cracks, and weld seams after surface preparation, and it can also reshape irregular geometries. This coating offers excellent corrosion resistance and resistance to slurry impact, with a maximum service temperature of 100°C (dry service).



Features & Benefits

- **Safe and Simple**
Complete solidification; safe and VOC-free
No specialist tools required
- **Durable and Versatile**
Thick-paste type, suitable for surface defect repair
Adheres well to almost any substrate
- **High Adhesive Strength**
Excellent surface protection
High compressive strength
Outstanding chemical resistance
- **Extremely Abrasion Resistant**
Extends equipment life
Reduces spare parts costs

Technical Data

Cured Density, g/cm ³	1.80 ± 0.10
Compressive Strength, MPa	≥ 85
Tensile Strength, MPa	≥ 25
Impact Strength, kg·m	≥ 1.0
Flexural Strength, MPa	≥ 50
Shore Hardness D	≥ 80
Resistance to chemical media corrosion (immersion in 30% sulfuric acid, 10% hydrochloric acid, 10% nitric acid and 10% sodium hydroxide respectively for 7 days at 25°C)	No abnormalities

Mix Ratio (Weight Ratio) A:B=3:1

Application Areas

- Conveyors and Crushers
- Hoppers
- Pumps
- Separators
- Mixers
- Mills
- Pipelines and Processing Equipment

Application Methods Scraping

Coverage & Packaging Calculate based on a thickness of 1.5mm

1kg: 0.375 m² / 10kg: 3.75m² Packaging: 10kg/set Colors: Gray



SUPERCHEM® Epoxy Coating GQRX

SUPERCHEM® Epoxy Coating GQRX is a solid-curing, organic solvent-free, fast-curing compound containing ultra-wear-resistant ceramic microspheres. It delivers exceptionally strong anti-wear performance and is primarily suitable for wear protection of equipment and facilities requiring emergency repair or exposed to severe sliding wear conditions. It also offers good corrosion and erosion resistance. The Application is done by scraping. The maximum operating temperature is 70°C (dry service).



Features & Benefits

- **Rapid Emergency Repair**
 - Fast curing
 - Complete solidification; safe and VOC-free
- **Ceramic Microsphere Protection**
 - Extreme abrasion resistance
 - Superior impact strength
 - High compressive strength
- **Outstanding Adhesion**
 - No undercutting
 - Eliminates tile seam failures
- **Minimizes Costs and Downtime**
 - Extends equipment life
 - Cuts spare parts inventory
 - Provides immediate protection

Technical Data

Cured Density, g/cm ³	2.10 ± 0.10
Compressive Strength, MPa	≥ 80
Impact Strength, kg·m	≥ 1.5
Flexural Strength, MPa	≥ 50
Shore Hardness D	≥ 80

Mix Ratio (Weight Ratio) A:B=4:1

Application Areas

- Hydrapulper
- Spindle Sleeve
- Coal Pulverizer
- Wear-Resistant Plate
- Replacement of Engraved Cold-Hard Castings
- Slurry Pump and Broke Pump
- Straight Pipe or Low-Angle Elbow Pipe

Application Methods

Scraping

Coverage & Packaging

Calculate based on a thickness of 3mm

1kg: 0.16 m² / 10kg: 1.6m² Packaging: 10kg/set Colors: Gray



How to choose the suitable SUPERCHEM® Epoxy Coating

Erosion / Corrosion	Chemical corrosion	Abrasion
BSQ1: Fluid, anti-erosion	SQ1: Resistant to moderate chemical corrosion	GQRX: Fast curing, resistant to severe abrasion
GQM: Local repair, resistant to strong corrosion		

Application Examples (Partial)



Corrosion prevention of steel structures in steam environments



Corrosion prevention of steel structures in corrosive environments



Anti-corrosion treatment of the inner wall of the fan flue duct



Anti-corrosion of the inner wall of the flue gas dust collector



Anti-corrosion treatment of the inner surface of the bottom plate and side plates of the gas holder



Corrosion prevention for the inner walls of corrosive tanks and vessels



Anti-corrosion treatment of pump base



Pump casing repair



SUPERCHEM® | A Brand under AIGI Environmental Inc.

Contact: info@aigienvironmental.com

www.aigienvironmental.com



S057-2026P3V1.0E