

Description

Archco-Rigidon System 503D is a 2 component heavy-duty trowel applied lining. It is formulated from a Vinyl Ester resin reinforced with 3.0mm glass flakes. The lining dry film thickness is nominally 2.0mm. Further coats can be applied should the specifying authority require additional coverage.

Principal Characteristics

- * Excellent corrosion resistance
- * Excellent abrasion resistance
- * Excellent erosion resistance
- * Very low permeability
- * Excellent chemical resistance
- * Very good application properties
- * High temperature tolerance
- * Excellent undercutting resistance
- * Excellent repairability
- * Rapidity of cure

Corrosion and Temperature Resistance

Archco-Rigidon system 503D is resistant to corrosive mineral acids, alkalis, salts and a range of oxidising chemicals at temperatures up to 100°C under immersion conditions and 170°C under fume or gaseous conditions, dependent upon the chemical type and concentration levels. Higher temperatures can be tolerated in certain circumstances based on successful case histories.

Suggested Uses

Archco-Rigidon system 503D is used primarily to protect steel from corrosive attack.

System 503D is widely used in the water treatment industry for lining filtration vessels, ion exchange vessels and applications involving effluent streams and treatment areas.

It is used extensively in the offshore oil industry for lining process vessels and is also used for lining stacks, ducts, fume scrubbers and fan cases in the power generation and chemical process industries. Inclusion of a waxed resin top coat maximises chemical resistance by accelerating full cure. Cosmetic appearance and surface finish are also improved.

How to Order

A full material system may be ordered by simply specifying **Archco-Rigidon system 503D**.

Contact **Archco-Rigidon** Engineers for further information.

System 503D	Vinyl Ester
Operating Temperature Range	-20°C to +100°C (immersed)
Application Method	Trowel only
Surface Preparation	Gritblast to SA2½ min
Colour	Off white
Catalyst Type	Archco-Rigidon C3
Volume Solids	98%-99%
Dry Film Thickness Per Coat	750-1000mic 30-40 mils
Min Substrate Temperature	10°C
Max Humidity During Application	90% Rh
Min Dewpoint/Substrate Differential	Dewpoint +3°C
Flash Point	31°C
Overcoating Times	Min.6 hrs - Max.7 days.
Tool Cleaning Solvent	T2 Cleaner
Storage Temperature Limits	10°C - 20°C
Specific Gravity	1.2
Shelf Life	6 months

Estimated Coverages are as follows:	Theoretical Material Requirement	Practical Material Requirement
Component	Quantity/m ² / 2mmDFT	Quantity/m ² / 2mmDFT
PD2 Primer	0.06kg	0.15kg
Resin Mix	2.40kg	4.00kg
*C3 Catalyst	0.03kg	0.05kg
Green Pigment	0.04kg	0.04kg
T2 Cleaner	0.50litres	0.50litres
P21 Rolling Aid	0.25litres	0.25litres
Wax Topcoat (optional)	0.15kg	0.35kg

*Recommended Catalyst ratio is normally between 1 ~ 1.5% by volume of the resin mix. Ambient conditions may have a bearing on actual levels of catalyst required. Consult Archco Rigidon Engineers for specific guidelines.

System 503D Typical Test Data		
Characteristic	Standard	Result
Abrasion Resistance	ASTM D 4060	0.027gm (smooth)
Adhesion Properties	ASTM D 952	8 MPa
Salt Water Resistance	ASTM B 117-57T	20,000 hrs. No effect
Cathodic Disbondment	BS 3900F11	Compatible
Tensile Strength	ASTM D 638	3975psi 280kg/cm ²
Flexural Strength	ASTM D 790	9425psi 660kg/cm ²