SYSTEM 403D Micro Data Sheet

Doc. Ref. 21A/403DM/Rev 3

Description

Archco-Rigidon System 403D is a two component medium duty brush or airless spray applied lining. It is formulated from a Vinyl Ester resin reinforced with 0.23mm x 2µ glass flakes. The lining dry film thickness is normally 1.0 mm. Further coats can be applied should the specifying authority require extra thickness.

Principal Characteristics

* Excellent corrosion resistance
* Very good abrasion resistance
* Very good erosion resistance
* Very low permeability
* Good chemical resistance
* Excellent application properties
* High temperature tolerance
* Excellent undercutting resistance
* Easy to repair
* Rapidity of cure

Corrosion and Temperature Resistance

Archco-Rigidon system 403D Micro is resistant to highly corrosive mineral acids, alkalis, salts and a range of oxidising chemicals and at 2mm DFT to total immersion temperatures up to 100ºC and gas temperatures up to 170ºC, depending on the chemical type and concentration levels. (Refer to detailed Chemical Resistance Chart)

Suggested Uses

Archco-Rigidon system 403D is used primarily to protect steel structures from corrosive attack.

System 403D 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 waxed resin top-coat (Blue) maximises chemical resistance by accelerating full cure. Cosmetic appearance and surface finish are also improved.

Conditions for Spraying

The product temperature must be between 20º and 25ºC for correct spraying viscosity. A maximum of 5% Styrene may added if the viscosity cannot be controlled by ensuring the correct product temperature for spraying.

How to Order

A full material system may be ordered by simply specifying **Archco-Rigidon system 403D Micro**
Contact **Archco-Rigidon** Engineers for further information.

*Practical Spread Rates

The above practical spread rates only allow for nominal wastage which occurs during application of the products. The appropriate wastage allowance must be made by the applicator depending on the site circumstances (e.g. Method of application, overspray, etc.). Denso SA cannot be held responsible for any excess usage by the applicator for whatsoever reason.

SYSTEM 403D	**NOVOLAC VINYL ESTER**
Operating Temp. Range	-20°C to +100°C(Immersed)
Application Method	Airless spray or brush
Surface Preparation	Gritblast to SA 2 ½ min
Colour	Off White
Catalyst Type	**Archco-Rigidon C3**
Volume Solids	98% - 99%
Dry Film Thickness/Coat	375-500 microns
Min Substrate Temp.	10°C
Gel Time	40-60 minutes @ 25ºC
Flash Point	31°C
Over-Coating Time (Undercoat) Over-coating Time (Topcoat)	1hour to 7 days @ 25ºC 1 hour -24hrs @ 25ºC
Dry to Handle	4hrs @ 20ºC, 2hrs @ 25ºC 1hr @ 30ºC, ½ hr @ 40ºC
Dry to put in Service	48 hrs@ 20ºC, 24hrs @ 25ºC 12 hrs @ 30ºC, 6hrs @ 40ºC
Tool Cleaning Solvent	**T2 Cleaner**
Specific Gravity	1.2
Shelf Life (10ºC-20ºC)	6 months
Chemical Resistance:	For guidance only. Reference can be made to column D in the Archco-Rigidon Chemical Resistance Guide.

Estimated Coverages are as follows: **NB: See Note Below**	**Theoretical Material Requirement**	**Practical Material Requirement** ***N.B. see note below**
Component	Quantity/m²/ 1.0mm DFT	Quantity/m²/ 1.0mm DFT
PD2 Primer (Optional)	0.06kg	0.15kg
403D Undercoat (White)	0.6kg	1.00kg
403D Topcoat (Blue)	0.6kg	1.00kg
C3 Catalyst	0.03kg	0.05kg
T2 Cleaner	0.50litres	0.50litres

System 403D Typical Test Data		
Characteristic	**Standard**	**Result**
Abrasion Resistance	ASTM D 4060	0.035gm(Smooth
Adhesion Properties	ASTM D 952	8 MPa
Cathodic Disbondment	BS 3900F11	Compatible
Salt Water Resistance	ASTM B1117-57T	20,000hrs No effect
Tensile Strength	ASTM D638	280kg/cm²
Flexural Strength	ASTM D790	660kg/cm²

For more information contact Denso Technical Sales on either of the listed telephone numbers;
Durban: 031 569 4319 Johannesburg: 011 704 7685 Secunda: 017 638 1216
e-mail: bid@denso.co.za website: www.denso.co.za