

Archco-Rigidon 503D is normally applied to suitably prepared and primed steel substrates (see Doc. Ref. 32A/PD2).

The glassflake material should be applied by trowel in two or more coats, each coat being 750 to 1000 mic thick. The first or intermediate coat should be slightly pigmented to provide a colour contrast and regular checks should be carried out with a wet film gauge to ensure uniform application of each coat.

Plate edges, corners and weld margins should be stripe coated with **Archco-Rigidon System 403D** by brush prior to application of the first coat of **Archco-Rigidon System 503D** and again before application of the finish coat. This will help to ensure adequate coverage of these areas.

The uncatalysed material must be mixed thoroughly using a mechanical whip. The material should then be catalysed according to quantity and ambient conditions (see Doc. Ref. 32A/C3). As a general rule use 1 to 2% catalyst when applying at temperatures between 10°C and 20°C. Ensure the two components are fully mixed using a mechanical whip prior to application. Use **Archco-Rigidon** materials directly after mixing.

NOTE Use of less than 1% catalyst will not produce a full cure of the coating material. Inadequate mixing will lead to areas of unsatisfactory cure.

Apply the material to the primed substrate by trowel to the required thickness. Using a short knapped mohair roller moistened with **Archco-Rigidon P21 Rolling Aid**, roll the surface of the material using medium pressure. This will orientate the glassflakes, remove any entrapped air and provide a smooth surface finish.

Pay particular attention to the stated pot life of the material (see material package labelling). Clean down tools and equipment with **Archco-Rigidon T2 Cleaner** within this specified time. Great care must be taken to avoid contaminating the coating material with **T2 Cleaner** as this can have adverse effects on the cure of the material.

Inspection and Testing

The Dry film thickness of the completed coating should be measured with an electronic instrument suitably calibrated. The lining should be examined for consistency of finish, lack of sags, runs, misses etc, particularly at inaccessible areas of the work.

The finished cured lining should be tested for holidays using a D.C. spark detector. A coating test voltage of 400V/mm should be used.

The degree of cure of the lining may be determined by a Barber Colman Hardness Impressor. A barcol hardness figure of 30 to 40 is acceptable

System 503D		
Application Method	Trowel only	
Catalyst Type	Archco-Rigidon C3	
Volume Solids	98%-99%	
Specific Gravity	1.2	
Dry Film Thickness per Coat	750-1000 mic	30-40 mils
Theoretical Spreading Rate	2.4kg/m ² /2mm DFT	
Practical Spreading Rate	4.0kg/m ² /2mm DFT	
Overcoating Times	Min 6 hrs-Max 7 days	
Tool Cleaning Solvent	Archco-Rigidon T2	
Max Humidity during Application	90% Rh	
Min Substrate Temperature	10°C	
Min Dewpoint/Substrate Differential	Dewpoint +3°C	
Preferred Equipment	Stainless Steel Plastering Trowel 7" Mohair Roller	
Pot Life	40 mins-60 mins	
Typical Curing Characteristics	Substrate Temperature 15°C	
	Touch Dry Approx 3.5 hrs	Full Cure 2-7 days
Dilution	Not Applicable	
Shelf Life	6 months	
Storage Temperature Limits	10°C – 20°C	
Flash Point	31°C	
Ventilation	Do not use in confined spaces without adequate ventilation or breathing equipment	
Lighting – Heating in an Enclosed Environment	Use only BASEFA Zone 1 Eex d IIA or better	

	Table 1 Steel Substrate				
Minimum Cleanliness Standards	Swedish Standard	BS4232	NACE	USA Specification	Japanese Standard
Near White Metal	Sa2½	2 nd Quality	=2	SSPC-SP10	JASh 2 JASd 2
Anchor Profile 503D System	75-150 micron		3-6 mils		
Primer D.F.T.	25-50 micron		1-2 mils		
Primer Type	Archco-Rigidon PD2				