

Solvent free epoxy/polyurethane system

4149

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EXPOSURE CONDITIONS: INDUSTRIAL: Conditions of high humidity, ultraviolet radiation and chemical pollution accelerate the corrosion process and require consideration regarding increased acidic fall out. The principal effect is corrosion due to sulphur dioxide attack and this environment is characterised by an average sulphur dioxide content of more than 10 µg per m³ air.

COASTAL: Conditions of high humidity, ultraviolet radiation and salt spray will accelerate the corrosion process, aggravated by wind borne particles. This environment is characterised by a salt content in rain water of more than 12 mg per litre rain.

SPECIFICATION 1:	surface tolerant solvent free epoxy/polyurethane maintenance system for intact areas and spot repair	
compatible with	alkyd, epoxy and polyurethane paint	
not on top of	chlorinated rubber and vinyl paint	
suitable for	steel, galvanised steel and aluminium	
pretreatment	<ul style="list-style-type: none"> – high pressure water cleaning to remove loose coating and contamination – intact areas; to be roughened e.g. sand papering or sweepblasting – damaged and corroded areas; <ul style="list-style-type: none"> – steel; derusted to ISO-Sa2 or SPSS-Pt2 and primed – galvanised steel and aluminium; to be roughened, by sand papering or sweep blasting surface shall be dry and free from any contamination and primed with e.g. Sigmacover 280 in a dft of 75 µm/3 mils 	
paint system	SigmaCover 1500	125 µm/3.0 mils
	SigmaDur 580	75 µm/3.0 mils
note	SigmaDur 580 can be replaced by SigmaDur 1800	



September 2005

SPECIFICATION 2:	surface tolerant solvent free epoxy/polyurethane system for total repair, suitable for steel, galvanised steel and aluminium	
pretreatment	<ul style="list-style-type: none"> – high pressure water cleaning to remove old coating system (if applicable) completely – corroded areas; <ul style="list-style-type: none"> – steel; derusted to ISO-Sa2 or SPSS-Pt2 and primed – galvanised steel and aluminium; to be roughened by e.g. sand papering or sweep blasting, surface shall be dry and free from any contamination and primed with e.g. Sigmacover 280 in a dft of 75 µm/3 mils 	
paint system	SigmaCover 1500	125 µm/5.0 mils
	SigmaDur 580	75 µm/3.0 mils
notes	SigmaDur 580 can be replaced by SigmaDur 1800	

GENERAL APPLICATION ASPECTS:

The life of any protective system is determined by the dry film thickness of the anticorrosive coating system present on weldseams, sharp edges, bolts and nuts, these being the critical 20% of the surface area where breakdown begins.

All critical areas should be given extra stripe coats with the same material as the consecutive coat of the system to achieve the specified dry film thickness.

Giving more attention to these areas will extend the life of the maintenance system.

The following parameters can be used.

For hand laid welds: Beads with a surface irregularity exceeding 3 mm or with sharp crests having a radius under 2 mm should be ground.

For sharp edges: All edges to be rounded off with a grinder to a radius of 2 mm or more.

For pitting: Pitting in excess of 2 mm in depth and under 5 mm in diameter should be filled by welding or by

use of an epoxy filler.



September 2005

REFERENCES

SigmaCover 1500	see product data sheet 7715
SigmaDur 580	see product data sheet 7530
SigmaDur 1800	see product data sheet 7529
Cleaning of steel and removal of rust	see information sheet 1490
Tools for maintenance management	see information sheet 4007

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