



INDUSTRIAL SPECIFICATION
Repair and Maintenance



STANDARD METHOD STATEMENT EPOXY/POLYURETHANE MAINTENANCE SYSTEMS

SYSTEM SHEET M1-UK High Durability Coating Specification Designed for aggressive coastal environments

Example of use – External of tanks, jetties, piers, cranes, bridges, structural steel

Project – EXAMPLE ONLY (Assessment on suitability must be made prior to use – If in doubt please consult with Tikkurila Technical Services)		
Environment: ISO C5M	Notes:	Method Statement for re-painting all existing previously painted external steel structures
Date: 2019	Prepared By: Tim Haythornthwaite	
<p>Preparation Summary:</p> <p>The performance of this system will depend on the degree and thoroughness of the surface preparation.</p> <p>Mechanical Clean Preparation ISO ST3</p>	<p>Surfaces to be coated must be clean, sound, dry and free from contamination. Prior to paint application all surfaces must be assessed and treated in accordance with ISO 8504.</p> <p>Remove all heavy corrosion and scale.</p> <p>All accumulated contamination, corrosion salts, chlorine, dirt, grease, oil to be removed by most appropriate means - ISO 12944-4.</p> <p>High pressure water blasting equipment with oscillating heads will aid the cleaning and preparation process where appropriate. Rinse well with clean water and allow to thoroughly dry.</p> <p>Remove all defective coatings by most appropriate means to a sound surface. When dry power disc damaged/corroded areas to Min ST 3 standard (near white metal) (ISO 8501-1: 2007)</p> <p>Rough edges to be feathered smooth to a firm edge.</p> <p>Re-wash exposed corroded areas to ensure removal of all corrosion salts/material and re-prepare to ISO ST3.</p> <p>Abrade as required to provide a 'key' and to remove any zinc salt/oxidation.</p> <p>All areas to be clean, sound, dry, and dust free prior to painting.</p>	

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Paint System

No of Coats	Product	Colour	DFT	Theo Spread Rate	Volume Solids	Thinner
1 x Patch or Full Prime as required to all bare steel.	Temabond ST200 2 Pack high Solids Epoxy Aluminium Anti Corrosive Primer	Aluminium	100um	8m/litre/coat	80%	1031
1 x Full Coat	Temacoat RM40 Two pack high solids epoxy intermediate.	To match finish	100um	6m/litre/coat	65%	1031
1 x Full Coat	Temacoat RM40 Two pack high solids epoxy intermediate.	To match finish	100um	6m/litre/coat	65%	1031
1 x Full	Temadur 10, 20, 50 or 90 2 pack polyurethane finish	TBC	40um	11m/litre	56%	1048
		Total DFT	340um			

- Certain finish colours may require two topcoats to ensure opacity.

Notes:

- Stripe coat all edges, bolts and difficult to spray areas to ensure thicknesses are achieved.
- Spread rates are theoretical and do not allow for wastage etc.
- Ensure coatings are well ventilated during curing and sufficiently cured before overcoating.
- Products to be used in accordance with relevant TDS.
- Dry film thicknesses must be in accordance with ISO19840
- Total Soluble Salt content on the steel should not exceed 40mg/m²(4ug/cm²) using the Bresle method to ISO8502-6/9 (DSM acceptable)

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MAINTENANCE

To help ensure life to 1st maintenance is achieved it is good practice to carry out routine inspection and maintenance of painted structures to help prolong the life of the applied system and keep it in good condition.

1 - Regular inspection of the work is recommended.

2 - Localised repairs should be carried out as appropriate. I.e. Mechanical damage etc. This must be touched up or repainted as appropriate equivalent to the specified system. Whilst efforts should be made to obtain the maximum degree of cosmetic appearance it should be recognised that such repairs may be visible.

3 - Regular washing/cleaning and repairs as required are recommended ideally on an annual basis or as appropriate dependant on environment.

SUGGESTED REPAIR PROCEDURES:

Suggested Repair Procedures being suggested are for routine annual maintenance of coatings which have become damaged during life of the system and in the normal course of exposure when rust grade is Ri1-Ri3 (ISO 4628-3). These areas should receive a remedial system equivalent to the specified protective treatment. While efforts should be made to obtain the maximum degree of cosmetic appearance, it should be recognised that such repairs may be visible. Brush application is assumed. Spray application may require fewer coats, please consult Tikkurila for advice.

Areas of damaged coating should be prepared as per original instructions to a firm coating edge. Sound coating edges should be feathered back and all areas to be over painted including 50mm of adjacent coating should be thoroughly abraded to form a 'key' and cleaned down as necessary (depending on overcoating characteristics of existing coating). All remedial areas should be cleaned down as required to provide a clean, dry surface for coating. Repair coats should be carefully applied and should overlap existing coats by the 50mm prepared area, ensuring that existing coating edges are sealed. Consult relevant Product Data Sheets and Health & Safety Data Sheets

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Maintenance Coating Repair Summary:

Type of Damage		Repair Procedure
A	Topcoat only damaged	Apply 1 coat of specified topcoat to 40um DFT
B	Topcoat and Intermediate coat damaged	Apply 1 or 2 coats as required Temacoat RM40 to 100um DFT per coat, followed by 1 coat of specified topcoat to 40um DFT. (For certain finish colours, more than one coat may be required).
C	Topcoat, Intermediate and Primer coats damaged, primer intact (no rusting)	Spot prime with Temabond ST200 primer to 100umDFT per coat. Patch apply 2 coats of Temacoat RM40 to 200um DFT, followed by 1 coat of specified topcoat to 40um DFT. (For certain finish colours, more than one coat may be required).

It is important to ensure full film thicknesses are restored to those originally specified

This repair procedure is for general guidance only. If in doubt consult with relevant technical representatives before use

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STANDARD IMPORTANT NOTES:

Full risk and Health & Safety assessment must be carried out to satisfy method statement and products are suitable prior to application.

Observe all data sheet instructions.

All good painting practices apply as described in BS 6150:1982 & ISO 12944, 8504 BS 5493 and all other relevant standards.

Thorough preparation is essential.

Do not apply products during damp, wet or frosty conditions.

During application and curing Surface should dry. Relative humidity should not exceed 80%. Steel surfaces must be 3°C above the dew point. Do not apply when rain, sleet, snow or mists are imminent.

All corrosion salts must be removed and steel chemically clean prior to painting. Testing for salts is desirable and allowances made for repeat washing made as appropriate.

All oil, grease, contamination etc. must be identified and removed prior to painting. Where cleaning has not successfully removed these deposits advice must be sought from appropriate technical services department.

Environmental conditions, temperature, humidity, ventilation must be carefully controlled and or monitored both during application and curing as required.

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Shop applied primers must be over coated as soon as possible after application taking note of maximum exposure times and over coating limits.

Regular inspection is recommended and repairs carried out as appropriate. i.e. Mechanical damage etc. This will help prevent premature deterioration.

Regular periodic washing will also help extend the life of the applied paint systems.

Application by brush may result in lower film thicknesses and additional coats may be required to achieve required film thickness.

Mastics and fillers – All defective mastics and fillers must be replaced or installed where required with appropriate mastic/filler/silicone sealant compatible with the paint system proposed

Design issues – Water traps, back to back joints, inaccessible areas etc must be addressed before coating. Design issues not addressed may lead to early deterioration and on-going corrosion and staining.

Any specification provided is our best recommendation from the information supplied and is given in good faith but without warranty or liability. We recommend a trial area is coated to ensure the product meets your requirements.

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