TE50

TEMACOAT RM 40

The epoxy systems TE50 are recommended for steel, aluminium, zinc and concrete surfaces exposed to abrasion, chemicals, high humidity and climate in indoor and outdoor applications, also for submerged and underground constructions.
TEMACOAT RM 40 is available in many colours, also light ones, which makes it easier to follow up the condition of the coating.
The systems are suitable for application both in field and in painting shops.

Corrosivity categories according to ISO 12944	**Tikkurila code**	**Treatment**
Steel surfaces		
C2.05, C3.05, C4.04 (12944-5:2019) **Corrosivity categories/durability C2-H, C3-M, C4-L** Steel constructions exposed to mild condensation in cold indoor spaces and outdoors in clean rural environment.	**TE50** TEMACOAT RM 40	**EP120/1-FeSa2½** 120 µm DFT 120 µm
C2.06, C3.06, C4.05, C5.01 (12944-5:2019) **Corrosivity categories/durability C2-VH, C3-H, C4-M, C5-L** Steel constructions exposed to mild condensation in cold indoor spaces and outdoors in clean rural environment.	**TE50** TEMACOAT RM 40	**EP180/2-FeSa2½** 2 x 90 µm DFT 180 µm
C3.07, C4.06, C5.02 (12944-5:2019) **Corrosivity categories/durability C3-VH, C4-H, C5-M** Steel structures in damp environment.	**TE50** TEMACOAT RM 40 DFT	**EP240/2-FeSa2½** 2 x 120 µm 240 µm
C4.07, C5.03 (12944-5:2019) **Corrosivity categories/durability C4-VH, C5-H** Steel structures in damp environment.	**TE50** TEMACOAT RM 40 DFT	**EP300/3-FeSa2½** 3 x 100 µm 300 µm
C5.04 (12944-5:2019) **Corrosivity categories/durability C5-VH** Steel structures in damp environment.	**TE50** TEMACOAT RM 40 DFT	**EP360/3-FeSa2½** 3 x 120 µm 360 µm
I.03 (12944-5:2019) **Corrosivity categories/durability Im1-H, Im2-H, Im3-H** Steel structures in immersion.	**TE50** TEMACOAT RM 40 TEMACOAT RM 40 DFT	**EP380/4-FeSa2½** 2 x 80 µm 2 x 110 µm 380 µm

Marking of paint systems: TE50-EN ISO 12944-5/ C2.05 (EP120/1-FeSa2½)

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Zinc surfaces

G2.01, G3.01, G4.01 (12944-5:2019)		
Corrosivity categories/durability C2-H, C3-M, C4-L	**TE50**	**EP80/1-ZnSaS**
Zinc surfaces outdoors in rural areas and urban areas	TEMACOAT RM 40	80 µm
	DFT	80 µm
G2.03, G3.02, G4.02, G5.01 (12944-5:2019)		
Corrosivity categories/durability C2-VH, C3-H, C4-M, C5-L	**TE50**	**EP120/1-ZnSaS**
Zinc surfaces indoors exposed to mechanical abrasion and outdoors exposed to moderate climatic conditions.	TEMACOAT RM 40	120 µm
	DFT	120 µm
G3.04, G4.04, G5.02b (12944-5:2019)		
Corrosivity categories/durability C3-VH, C4-H, C5-M	**TE50**	**EP160/2-ZnSaS**
Zinc surfaces outdoors in coastal and industrial areas in aggressive environment.	TEMACOAT RM 40	2 x 80 µm
	DFT	160 µm
G4.06, G5.04 (12944-5:2019)		
Corrosivity categories/durability C4-VH, C5-H	**TE50**	**EP200/2-ZnSaS**
Zinc surfaces outdoors in coastal and industrial areas in aggressive environment.	TEMACOAT RM 40	2 x 100 µm
	DFT	200 µm

SaS = Sweep blasting according to EN ISO 12944-4

COLOURS	Temacoat 50 is tintable with TEMASPEED colorants, thus ensuring the possibility to get shades from RAL-, BS-, NCS- and other colour cards.
SUITABLE SHOP PRIMERS	Temablast EV 110, epoxy shop primer

SURFACE PREPARATION

Oil, grease, salts and dirt are removed by appropriate means. (EN ISO 12944-4)

Steel surfaces: Blast clean to grade Sa2½. (EN ISO 8501-1) If blast cleaning is not possible, phosphating is recommended for cold rolled steel to improve adhesion.

Zinc surfaces: Sweep blast clean with mineral abrasives, e.g. quartz sand, to an even roughness. (EN ISO 12944-4) If sweep blasting is not possible, the surface should be roughened by hand abrading or washed with Panssaripesu detergent. Hot dip galvanized surfaces are recommended to be painted with a misty coat (paint thinned 25-30%) before the actual priming.

Damages in the zinc coating have to be repaired with TEMAZINC 99, a zinc rich epoxy paint. Before painting, clean the surfaces thoroughly (Sa2½/St3) and level off the edges around the cleaned areas.

Aluminium surfaces: Sweep blast-clean with non-metallic abrasives to an even roughness. (EN ISO 12944-4)

Primed surfaces: Oil, grease, salt and dirt are removed from the surface by appropriate means. Repair any damage to the primer coat. Note the overcoating time of primer.
(EN ISO 12944-4)

Concrete surfaces: The surface must dry and at least 4 weeks old. The relative humidity of the concrete should not exceed 97%. Remove any splashes and unevenesses by grinding. Remove laitance and form oil from concrete castings by sanding or blast cleaning. Any cracks, crevices and voids must be repaired with a mixture of TEMAFLOOR 200 and fine dry quartz sand

APPLICATION CONDITIONS

The surface must be clean and dry and the surface temperature should remain at least 3ºC above the dew point. During application and drying the temperature of the air, paint and surface should be a minimum of +10ºC. The relative humidity should not exceed 80%.

Note! There is a natural tendency of epoxy coatings to chalk and discolor on exterior exposure.

APPLICATION

The paint should be mixed thoroughly before application and then applied in an even coat on the dry and clean surface. Application with airless or conventional spray, brush or roller. Stripe coating of sharp edges, welding seams etc. should be done by brush or roller.

MAINTENANCE PAINTING

Maintenance
Touch-up painting is sufficient for maintenance when the rust grade is Ri1-Ri3. (EN ISO 4628-3) Damages caused by transport or installation may also be repaired by touch-up painting. Remove all loose paint, clean rusty areas according to system demands. On steel surfaces small areas can be grinded or wire brushed to preparation grade St2. (EN ISO 8501-1)
Level off the edges between the old paint film and the cleaned up areas. When using blast cleaning, be sure that there are no cracks in the remaining paint film. If the entire surface has to be overcoated, abrade the old topcoat to a rough finish. Remove all dust and other cleaning residues. Apply primers and finish according to the original paint system, qualities and film thicknesses.

Repainting
When the rust grade is Ri4 or Ri5, the entire coating must be renewed. Remove the old paint film and clean the surfaces to preparation grade Sa2½. Recoat in accordance with the original paint system.

PRODUCT INFORMATION

More detailed product information is available in respective data sheets.

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