TE51

TEMATAR TFA

The epoxy systems TE51 are recommended for steel and zinc surfaces exposed to abrasion, chemicals, high humidity and climatic conditions in indoor and outdoor applications and especially for submerged and underground constructions when no requirements for the colour are set. Good water resistance.

Corrosivity categories/durability 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	**TE51**		**EP120/1-FeSa2½**
Steel constructions exposed to mild condensation in cold indoor	TEMATAR TFA		120 µm
spaces and outdoors in clean rural environment.		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	**TE51**		**EP180/2-FeSa2½**
Steel constructions exposed to mild condensation in cold indoor	TEMATAR TFA		2 x 90 µm
spaces and outdoors in clean rural environment.		DFT	180 µm
C3.07, C4.06, C5.02 (12944-5:2019)	**TE51**		**EP240/2-FeSa2½**
Corrosivity categories/durability C3-VH, C4-H, C5-M	TEMATAR TFA		2 x 120 µm
Steel structures in damp environment.		DFT	240 µm
C4.07, C5.03 (12944-5:2019)	**TE51**		**EP300/3-FeSa2½**
Corrosivity categories/durability C4-VH, C5-H	TEMATAR TFA		3 x 100 µm
Steel structures in damp environment.		DFT	300 µm
C5.04 (12944-5:2019)	**TE51**		**EP360/3-FeSa2½**
Corrosivity categories/durability C5-VH	TEMATAR TFA		3 x 120 µm
Steel structures in damp environment.		DFT	360 µm
Corrosivity categories Im1, Im2, Im3	**TE51**		**EP250/2-FeSa2½**
Inside of crude and fuel oil tanks, sewage water tanks and basins,	TEMATAR TFA		2 x 125 µm
interior of girders and other similar steelwork.		DFT	250 µm
Acceptance of the Finnish Road Administration, system TIEL 4.4			
I.03 (12944-5:2019)	**TE51**		**EP380/4-FeSa2½**
Corrosivity categories/durability Im1-H, Im2-H, Im3-H	TEMATAR TFA		80 µm
Steel constructions in underground and underwater applications when	TEMATAR TFA		3 x 100 µm
a long maintenance free period is wanted.		DFT	380 µm

Marking of paint systems: TE51-EP380/4-FeSa2½

Zinc surfaces

G2.01, G3.01, G4.01 (12944-5:2019)	**TE51**		**EP80/1-ZnSaS**
Corrosivity categories/durability C2-H, C3-M, C4-L	TEMATAR TFA		80 µm
Zinc surfaces outdoors in rural areas and urban areas		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	**TE51**		**EP120/1-ZnSaS**
Zinc surfaces indoors exposed to mechanical abrasion and outdoors exposed to moderate climatic conditions.	TEMATAR TFA		120 µm
		DFT	120 µm
G3.04, G4.04, G5.02b (12944-5:2019)			
Corrosivity categories/durability C3-VH, C4-H, C5-M	**TE51**		**EP160/2-ZnSaS**
Zinc surfaces outdoors in coastal and industrial areas in aggressive environment.	TEMATAR TFA		2 x 80 µm
		DFT	160 µm
G4.06, G5.04 (12944-5:2019)			
Corrosivity categories/durability C4-VH, C5-H	**TE51**		**EP200/2-ZnSaS**
Zinc surfaces outdoors in coastal and industrial areas in aggressive environment.	TEMATAR TFA		2 x 100 µm
		DFT	200 µm
Corrosivity categories Im1, Im2, Im3	**TE51**		**EP250/2-ZnSaS**
Zinc surfaces in underwater and underground applications.	TEMATAR TFA		2 x 125 µm
		DFT	250 µm

SaS = Sweep blasting according to EN ISO 12944-4

COLOURS Black.

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. (SaS, SFS 5873) If sweep blasting is not possible, the surface should be roughened by hand abrading or washed with PANSSARIPERU 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 must 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.

Concrete surfaces:
The surface must be dry and at least 4 weeks old. The relative humidity of the concrete should not exceed 97%. Remove any splashes and unevenness 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, 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 %.

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 must 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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