TEKNOPLAST 50 / 90 EPOXY SYSTEMS

K36

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

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Coating systems for anti-corrosive painting on steel and zinc surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. Semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	**K36a**	**K36b**	**K36c**	**K36d**	**K36e**	**K36f**
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	**A2.06/C2/M A3.07/C3/L**	**A2.07/C2/H A3.08/C3/M**	**A3.09/C3/H**	**A4.08/C4/M**	**A4.09/C4/H**	**A5I.02/C5-I/H A5M.02/C5-M/H**
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EP120/2-FeSa 2½	EP160/2-FeSa 2½	EP200/3-FeSa 2½	EP240/3-FeSa 2½	EP280/4-FeSa 2½	EP320/4-FeSa 2½
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	-	1 x 60 µm	1 x 80 µm	2 x 70 µm	2 x 90 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 60 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m²	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	**K36g**	**K36h**	**K36i**	**K36j**
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	**A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L**	**A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M**	**A7.11/C5-I/M A7.11/C5-M/M**	**A7.13/C5-I/H A7.13/C5-M/H**
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EP120/2-ZnSaS	EP160/2-ZnSaS	EP240/3-ZnSaS	EP320/4-ZnSaS
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	-	1 x 80 µm	2 x 80 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m²	100	130	200	260

Example of the coating system marking: K36a - EN ISO 12944-5/ A2.06(EP120/2-FeSa 2½).

PTO

USAGE Protection for steel and zinc-coated surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to chemical and mechanical abrasion.

Teknos symbol	Typical use
STEEL SURFACES:	
K36a	Steel structures under minor mechanical abrasion, such as building frames in corrosivity categories C2 and C3.
K36b	Protecting steel surfaces in corrosivity categories C2 and C3.
K36c	Protecting steel surfaces in corrosivity categories C2 and C3.
K36d	Suitable for steel surfaces exposed to special stresses. Corresponds to standards DIN 55928-T05-6-30.2 and BS 5493:1977; SK2. Corrosivity categories C3 and C4.
K36e	Protection for steel surfaces in corrosivity category C4.
K36f	Industrial steel structures exposed to exceptionally severe stress. Corrosivity categories C4 and C5.
ZINC SURFACES:	
K36g	Protection for hot-dip-galvanized surfaces indoors and outdoors in corrosivity categories C3, C4 and C5.
K36h	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K36i	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K36j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.
It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with PELTIPESU Cleaning Agent.

Aluminium surfaces: Treat the surfaces with PELTIPESU cleaning agent. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

Old painted surfaces suitable for overcoating: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application

Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance

Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up.
Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.
If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPLAST PRIMER 5		TEKNOPLAST 50		TEKNOPLAST 90	
Data Sheet	No.	918		443		857	
Paint Type		two pack epoxy primer		two pack epoxy paint		two pack epoxy paint	
Colours		red, yellow, white and grey		Teknomix-tinting system		Teknomix-tinting system	
Finish		semi-matt		semigloss		gloss	
Thinner		TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506	
Methods of application		airless spray		airless spray		airless spray	
Airless spray nozzle		0.013 - 0.019"		0.013 - 0.019"		0.011 - 0.013"	
Application conditions - min. temperature - max. relative humidity	 ℃ %	 +10 80		 +10 80		 +10 80	
Safety markings		See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids		53 ±2		53 ±2		53 ±2	
Total mass of solids	g/l	abt. 900		abt. 800		abt. 760	
Volatile organic compound (VOC)	g/l	abt. 440		abt. 430		abt. 430	
Recommended film thickness - wet - dry	 µm µm	 113 - 169 60 - 90		 113 - 150 60 - 80		 115 - 150 60 - 80	
Theoretical spreading rate	m²/l	8.8 - 5.9		8.8 - 6.6		8.8 - 6.6	
Drying time, +23℃ / 50 % RH - dust free (ISO 9117-3:2010) - touch dry (DIN 53150:1995) Overcoatable, 50% RH		(dry film 60 µm) after 1 h after 4 h by itself or with TEKNOPLAST Top Coats:		(dry film 60 µm) after 1 h after 4 h by itself:		(dry film 60 µm) after 1 h after 4 h by itself:	
		min.	max.*	min.	max.*	min.	max.*
+10℃		after 6 h	after 6 months	after 6 h	after 1 month	after 6 h	after 1 month
+23℃		after 2 h	after 6 months	after 2 h	after 1 month	after 2 h	after 1 month

* Maximum overcoating interval without roughening.