

# General Steel Structures

## PAINTING SOLUTIONS



## Painting Systems

<b>The most cost effective systems</b>
--

a)	<b>TEKNOLAC COMBI 50 Alkyd Primer-Finish</b>
b)	TEKNOLAC PRIMER 0168-00 Alkyd Primer + TEKNOLAC 50 Semi-gloss or TEKNOLAC 90 Gloss Alkyd Topcoat
c)	<b>TEKNOPLAST HS 150 Epoxy Primer-Finish</b>
d)	INERTA MASTIC (MIOX) High Solid Epoxy + TEKNODUR 0050 Semi-gloss or TEKNODUR 0090 Gloss Polyurethane Top Coat
e)	INERTA MASTIC (MIOX) High Solid Epoxy + TEKNOCRYL AQUA 350 Semi-gloss or TEKNOCRYL AQUA 390 Gloss Water-based Acrylic
*f)	TEKNOPLAST PRIMER 7 Epoxy Primer + TEKNODUR 0050 Semi-gloss or 0090 Gloss Polyurethane Top Coat
*g)	TEKNODUR COMBI 3430 Polyurethane Primer-Finish
*h)	<b>TEKNODUR COMBI 3560 Polyurethane Primer-Finish</b>
i)	TEKNOPOX AQUA PRIMER 3 Water-based Epoxy Primer + TEKNODUR AQUA 3390 Water based Polyurethane Top Coat

\*Systems f) – h) corrosion resistance can be upgraded by using TEKNOZINC 80 SE Zinc Rich Epoxy Primer

## System Features / Benefits

### Features

- a) Single layer alkyd primer-finish  
Fast drying  
The most economical alkyd paint system when the corrosion risk is low
- b) Fast drying, two layer alkyd system  
System gives good anticorrosive properties
- c) Single coat epoxy system  
High solids  
Anticorrosive pigmented
- d) High solids, low VOC content  
Surface tolerant epoxy  
Suitable for application down to -5° C  
Micaceous iron oxide variant available  
Topcoat UV-resistant polyurethane  
Extended recoatability
- e) High solids, low VOC content  
Surface tolerant epoxy  
Primer suitable for application down to -5° C  
Water-based 1K topcoat
- f) High solids, low VOC content primer  
Low temperature curing  
Extended recoatability
- g) Very good gloss and colour retention  
Anticorrosive pigmented  
Fast drying  
Low VOC content approx. 350 g/l
- h) Very good gloss and colour retention  
Very low VOC content  
Very fast drying  
Low temperature curing  
Anticorrosive pigmented
- i) Water-based epoxy primer and polyurethane top coat system  
Very low VOC content  
Low odour system

### Benefits

- Cost savings in production  
Fast throughput, can be forced with heat
- Cost savings in production  
Long term economical protection
- Savings in production  
Low VOC content  
Combined primer/finish
- Control of solvent emissions  
Savings in pretreatment costs  
Year around workability  
Additional corrosion protection  
Extended maintenance period  
Easy maintenance
- Control of solvent emissions  
Savings in pretreatment costs  
Year around workability  
Environmentally friendly
- Control of solvent emissions  
Year around workability  
Easy maintenance
- Control of maintenance  
Combined primer / finish  
Fast throughput, can be forced with heat  
Control of solvent emissions
- Tough, impact resistant  
Control of emissions  
Very fast throughput  
Year around workability  
Combined primer / finish
- Environmentally friendly coating system  
Control of emissions  
Worker friendly system

## Recommended Typical Systems According to ISO 12944

Examples:

Paint System	Dry Film Thickness	Corrosion Class
TEKNOLAC COMBI 50 Alkyd Primer-Finish	1 x 100 µm	C2-M
TEKNOLAC PRIMER 0168-00 Alkyd Primer TEKNOLAC 50 Semigloss or TEKNOLAC 90 Gloss Alkyd Top Coat	1 x 80 µm <u>1 x 40 µm</u> 120 µm	C3-L
TEKNOPLAST HS 150 Epoxy Primer-Finish	1 x 120 µm	C3-L
INERTA MASTIC (MIOX) High Solid Epoxy TEKNODUR 0050 Semigloss or TEKNODUR 0090 Gloss Polyurethane Top Coat	1 x 125 µm <u>1 x 40 µm</u> 165 µm	C4-M
INERTA MASTIC (MIOX) High Solid Epoxy TEKNOCRYL AQUA 350 Semigloss or TEKNOCRYL AQUA 390 Gloss Water-based Acrylic	1 x 160 µm <u>1 x 40 µm</u> 200 µm	C4-M
TEKNOPLAST PRIMER 7 Epoxy Primer TEKNODUR 0050 Semigloss or TEKNODUR 0090 Gloss Polyurethane Top Coat	2 x 80 µm <u>1 x 40 µm</u> 200 µm	C5-M/L
TEKNODUR COMBI 3430 Polyurethane Primer-Finish	<u>2 x 60 µm</u> 120 µm	C3-M
TEKNODUR COMBI 3560 Polyurethane Primer-Finish	1 x 120 µm	C4-M
TEKNOPOX AQUA PRIMER 3 Water-based Epoxy Primer TEKNODUR AQUA 3390 Water based Polyurethane Top Coat	2 x 80 µm <u>1 x 40 µm</u> 200 µm	C4-M

More info/specifications from Teknos K-System Manual

## Testing Data, ISO 12944

Corrosivity category as defined in ISO 12944-2	Durability Ranges	ISO 6270 (water condensation)	ISO 7253 (neutral salt spray)
C2	Low Medium High	48h 48h 120h	
C3	Low Medium High	48h 120h 240h	120h 240h 480h
C4	Low Medium High	120h 240h 480h	240h 480h 720h
C5-I	Low Medium High	240h 480h 720h	480h 720h 1440h
C5-M	Low Medium High	240h 480h 720h	480h 720h 1440h







## Corrosion Environment Classification

Corrosivity Category		Examples of typical environments in a temperate climate
	<u>Exterior</u>	<u>Interior</u>
C1		Heated buildings with clean atmosphere e.g. offices, shops, schools etc.
C2	Atmospheres with low level of pollution. Mostly rural areas.	Unheated buildings where condensation may occur e.g. depots
C3	Urban and industrial atmospheres, moderate sulphur dioxide pollution. Coastal areas with low salinity.	Production rooms with high humidity and some air pollution e.g. food processing plants, breweries etc.
C4	Industrial areas and coastal areas with moderate salinity	Chemical plants, coastal ship and boatyards
C5-I	Industrial areas with high humidity and aggressive atmosphere	Buildings or areas with almost permanent condensation and with high pollution
C5-M	Coastal and offshore areas with high salinity	Buildings or areas with almost permanent condensation and with high pollution

## Basic Product Properties

Product name	Solids by Volume	Drying time (touch dry)	Overcoat interval, (23° C) min / max
TEKNOLAC COMBI 50	45%	1 h	1 h / -
TEKNOLAC PRIMER 0168-00	48%	20-30 min	40 min / -
TEKNOLAC 50	44-45%	1 h	1 h / -
TEKNOLAC 90	44%	1 h	4-7 d / -
TEKNOPLAST HS 150	70%	5 h	1 h / 1 mth
INERTA MASTIC	80%	5-6 h, std harneder - winter hardener	6 h / 7 d when overcoated with TEKNODUR topcoat
TEKNOPLAST PRIMER 3	53%	4 h	4 h / 3 d when overcoated with TEKNODUR topcoat
TEKNODUR 0050 / TEKNODUR 0090	50-56%	6 h	12 h / - when overcoated with the product itself
TEKNODUR COMBI 3430	58-61%	5 h	4 h / - when overcoated with the product itself
TEKNODUR COMBI 3560	74-93%	50 min – 4 h	1-4 h / 7-28 d when overcoated with the product itself
TEKNOPOX AQUA PRIMER 3	45%	5 h	4 h / 1-6 mth
TEKNODUR AQUA 3390	42%	6½ h	6 h / 14 d
TEKNOCRYL AQUA 350 / TEKNOCRYL AQUA 390	40%, by volume	40 min	4 h / -

## Preparation Grades

Standard preparation grade According to ISO8501-1		Feature of prepared surface
Sa1		Poorly adhering mill scale, rust and paint coatings and foreign matter are removed
Sa2		Most of the mill scale, rust, paint coatings and foreign matter are removed. Any residual contamination shall be firmly adhering
Sa2½		Mill scale, rust and paint coatings and foreign matter are removed. Any remaining traces of contamination shall show only as slight stains in the form of spots or stripes
Sa3		Mill scale, rust, paint coatings and foreign matter are removed. The surface shall have a uniform metallic colour
St2		Poorly adhering mill scale, rust and paint coatings and foreign matter are removed
St3		Poorly adhering mill scale, rust and paint coatings and foreign matter are removed. However, the surface shall be treated much more thoroughly than for St2 to give metallic sheen arising from the metallic substrate

## Typical Objects



**TEKNOPLAST HS150** Epoxy Primer-Finish



**TEKNOPLAST PRIMER 3** Epoxy Primer  
**TEKNODUR 0050** Polyurethane Top Coat



**TEKNODUR COMBI 3560**  
Polyurethane Primer-Finish



**TEKNODUR COMBI 3560**  
Polyurethane Primer-Finish

## Typical Objects



**INERTA MASTIC** Epoxy primer  
**TEKNODUR 0090** Polyurethane Top Coat



**INERTA PRIMER 5** Epoxy primer  
**TEKNODUR 0050** Polyurethane Top Coat



**TEKNODUR COMBI 3430**  
Polyurethane Primer-Finish



**TEKNODUR COMBI 3430**  
Polyurethane Primer-Finish

## References

### **Belarus**

Belarus Neft  
Naftan

### **Czech Republic**

ViaCon CR s.r.o.

### **Denmark**

Bladtindustries  
Danske Ståhl  
Mærsk Oil and Gas  
Sondex

### **Estonia**

KCI Hoist  
Konesko  
Paide Masinatehas  
Viljandi Metall

### **Finland**

FSP, Finnish Steel Painting Oy  
Kalmar  
Levator Oy  
Normek Oy  
Ruukki

### **Germany**

Muehlhan  
RWE

### **Latvia**

DCM Montaza  
SIA Latteps

### **Lithuania**

Alga Concern  
Mitnija

### **Poland**

Exbud Skanska  
J.K. Kiedrowski  
Mostostal Chojnice  
Mostostal Pulawy  
Mostostal Zabrze  
Polimex Mostostal Siedlce

### **Russia**

Bashneft  
Surgut Nefte Gaz  
Uralmash

### **Sweden**

Fermeco AB  
LR-system AB  
Maku Stål AB  
Ranaverken AB  
SWL Stålkonstruktioner AB

More information can be obtained from Teknos website: [www.teknos.com](http://www.teknos.com)

## Teknos Group Companies

**Teknos Oy**

Helsinki factory, Head office  
Takkatie 3, P.O.Box 107  
FI-00371 HELSINKI  
Finland  
Tel. +358 9 506 091  
sales@teknos.fi

**Teknos Oy**

Rajamäki factory  
Perämatkuntie 12,  
P.O.Box 14  
FI-05201 RAJAMÄKI  
Finland  
Tel. +358 9 506 091  
sales@teknos.fi

**Teknos A/S**

Industrivej 19  
DK-6580 VAMDRUP  
Denmark  
Tel. +45 76 93 94 00  
teknos@teknos.dk

**Teknos AB**

Limmaredsv. 2, P.O.Box 211  
SE-514 24 TRANEMO  
Sweden  
Tel. +46 325 619 500  
info@teknos.se

**Teknos Deutschland GmbH**

Edelzeller Strasse 62  
DE-36043 FULDA  
Germany  
Tel. +49 661 1080  
info@teknos.de

**Teknos Norge A/S**

Industriveien 28  
NO-3430 SPIKKESTAD  
Norway  
Tel. +47 31 29 49 00  
teknos@teknos.no

**Teknos UK Ltd**

Unit E1, Heath Farm  
Banbury Road, Swerford  
OXFORDSHIRE OX7 4BN  
England  
Tel. +44 1608 683 494  
sales@teknos.co.uk

**Teknos Ireland**

t/a L A Cook & Co Ltd  
Unit 1  
Fortwilliam Ind Estate  
Dargan Crescent  
BELFAST BT3 9JP  
Ireland  
Tel. +44 2890 960670  
sales.ni@teknos.co.uk

**Teknos Sp. z o.o.**

Ul. Sterdynska 1  
PL-03-797 WARSAW  
Poland  
Tel. +48 22 67 87 004  
biuro@teknos.pl

**Teknos OOO**

Butyrskij Val, 68/70, bl.4, of.211  
127055, MOSCOW  
Russia  
Tel./Fax. +7(495) 967 19 61  
teknos.russia@teknos.com

**Teknos d.o.o.**

Kidriceva cesta 94  
4220 ŠKOFJA LOKA  
Slovenia  
Tel: +386 4 236 58 78  
Fax: +386 4 236 58 79  
info@teknos.si

**Teknos Group Oy**

Teknos Group's parent company  
Takkatie 3, P.O.Box 107  
FI-00371 HELSINKI  
Finland  
Tel. +358 9 506 091  
sales@teknos.fi

## The Teknos Group

Teknos is the leading supplier of industrial coatings in Scandinavia with a strong position in retail and architectural coatings, too.

Teknos subsidiaries operate in Scandinavia, Germany, the UK, Ireland, Poland, Slovenia and Russia, and the company has a network of well-established sales agents and representatives in around 20 other European countries.

Teknos employs around 1 000 staff. Group turnover is EUR 250 million. Teknos is one of Finland's largest family-owned businesses.

