

Approved by  
the German  
Federal Highway  
Research Institute  
(BASt)

 **MONOPOL**  
COLORS

Certified corrosion protection  
**TL/TP-KOR Steel constructions**  
Sheet 81 / 86 / 87 / 97

# TL/TP-KOR Steel constructions

## Sheet 87

Steel substrate Blast cleaned as per ISO 8501-1, Sa 2½	Primer HEMPADUR TL/ZN 87260 2C-Epoxy-Zinc Dust	Primer and edge protection HEMPADUR TL87/ZP 87430/1 2C-Epoxy-Zinc Phosphate	Intermediate coat HEMPADUR TL87/EG 87280 2C-Epoxy-Micaceous iron oxide	Top coat HEMPATHANE TL87/EG 87480 2C-PUR-Micaceous iron oxide	Top coat HEMPATHANE TL87/RAL 87481 2C-PUR satin gloss
<b>Color</b>	grey (19840) / redgrey (19830)	yellow oxide (2G280) / redbrown (67120)	DB 702 / DB 703 / DB 601	DB colors	RAL colors
<b>Material Nos.</b>	687.03 / 687.04	687.02 / 687.06	687.12 / 687.13 / 687.14	687.30 - 74	687.75 - 99
<b>Density</b>	2,9 kg/l	1,7 kg/l	1,8 kg/l	1,5 kg/l	1,4 kg/l
<b>Solids volume</b>	~ 66%	~ 64%	~ 65%	~ 57%	~ 60%
<b>Mixing ratio</b>	5:1 with hardener 89200	7,5:1 / 7:1 with hardener 89300	7:1 with hardener 89300	10,4:1 with hardener 95370	7:1 with hardener 95370
<b>Pot life</b>	8 hours (at 20 °C)	8 hours (at 20 °C)	8 hours (at 20 °C)	8 hours (at 20 °C)	8 hours (at 20 °C)
<b>Application temperature</b>	≥ 5 °C - ≤ 40 °C	≥ 5 °C - ≤ 40 °C	≥ 5 °C - ≤ 40 °C	≥ 5 °C - ≤ 40 °C	≥ 5 °C - ≤ 40 °C
<b>VOC content</b>	324 g/l	328 g/l / 354 g/l	347 g/l	373 g/l	380 g/l
<b>Thinner</b>	08450	08450	08450	08080	08080
<b>Consumption (theoretical)</b>	0.627 kg/m <sup>2</sup> at 70 µm (DFT)	0.313 kg/m <sup>2</sup> at 80 µm (DFT)	0.326 kg/m <sup>2</sup> at 80 µm (DFT)	0.306 kg/m <sup>2</sup> at 80 µm (DFT)	0.271 kg/m <sup>2</sup> at 80 µm (DFT)
<b>Drying time at 23 °C and 50% humidity</b>					
- Dust-free	30 minutes	30 minutes	45 minutes	1 hour	1 hour
- Dry to touch	4 hours	6 hours	6 hours	16 hours	16 hours
- Coatable (80 µm DFT*)	6 hours	6 hours	6 hours	12 hours	16 hours
<b>Temperature resistance (dry warmth)</b>	150 °C	150 °C	150 °C	150 °C	150 °C
<b>Packaging</b>	12l (10 Coating / 2 Hardener)	20l (17,6/17,5 Coating / 2,4/2,5 Hardener)	20l (17,5 Coating / 2,5 Hardener)	20l (18.1 Coating/ 1.9 Hardener)	20l (17.5 Coating / 2.5 Hardener)
<b>Storage life</b>	Coating 1 year / Hardener 3 years	3 years	3 years	Coating 3 years / Hardener 2 years	Coating 3 years / Hardener 2 years

\* DFT = Dry film thickness

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Coating system according to Sheet 87

Primer	HEMPADUR TL/ZN 87260-19840 grey	70 µm
Edge protection	HEMPADUR TL87/ZP 87431 redbrown	80 µm
1 <sup>st</sup> Intermediate coat	HEMPADUR TL87/EG 87280 grey DB 703	80 µm
2 <sup>nd</sup> Intermediate coat	HEMPADUR TL87/EG 87280 grey DB 702	80 µm
Top coat	HEMPATHANE TL87/EG 87480 DB or HEMPATHANE TL87/RAL 87481 RAL	80 µm

Total dry film thickness 310 µm (390 µm)

# TL/TP-KOR Steel constructions

## Sheet 97

Steel substrate Blast cleaned as per ISO 8501-1, Sa 2½	Primer HEMPADUR TL/ZN 87260 2C-Epoxy-Zinc Dust	Primer and edge protection HEMPADUR TL97/ZP 87460/1 2C-Epoxy-Zinc Phosphate	Intermediate coat HEMPADUR TL97/EG 87270 2C-Epoxy-Micaceous iron oxide	Intermediate and top coat HEMPATHANE TL97/EG 87590 2C-PUR-Micaceous iron oxide	Top coat HEMPATHANE TL97/RAL 87591 2C-PUR satin gloss
<b>Color</b>	grey (19840) / redgrey (19830)	yellow oxide (2G280) / redbrown (67120)	DB 702 / DB 703 / DB 601	DB 502 / DB 602 / DB colors	RAL colors
<b>Material Nos.</b>	697.03 / 697.04	697.02 / 697.06	697.12 / 697.13 / 697.14	697.15 / 697.16 / 687.30 - 74	687.75 - 99
<b>Density</b>	2,9 kg/l	1,7 kg/l	1,8 kg/l	1,5 kg/l	1,4 kg/l
<b>Solids volume</b>	~ 66%	~ 61%	~ 65%	~ 57%	~ 59%
<b>Mixing ratio</b>	5:1 with hardener 89200	8:1 with hardener 89610	7:1 with hardener 89610	14:1 with hardener 89600	8:1 with hardener 89600
<b>Pot life</b>	8 hours (at 20 °C)	7 hours (at 20 °C)	7 hours (at 20 °C)	2 hours (at 20 °C)	2 hours (at 20 °C)
<b>Application temperature</b>	≥ 3 °C - ≤ 40 °C	≥ 3 °C - ≤ 40 °C	≥ 3 °C - ≤ 40 °C	≥ 3 °C - ≤ 40 °C	≥ 3 °C - ≤ 40 °C
<b>VOC content</b>	324 g/l	332 g/l	354 g/l	373 g/l	380 g/l
<b>Thinner</b>	08450	08450	08450	08080	08080
<b>Consumption (theoretical)</b>	0.627 kg/m <sup>2</sup> at 70 µm (DFT)	0.549 kg/m <sup>2</sup> at 80 µm (DFT)	0.365 kg/m <sup>2</sup> at 80 µm (DFT)	0.329 kg/m <sup>2</sup> at 80 µm (DFT)	0.296 kg/m <sup>2</sup> at 80 µm (DFT)
<b>Drying time at 23 °C and 50% humidity</b>					
- Dust-free	30 minutes	30 minutes	30 minutes	1 hour	1 hour
- Dry to touch	4 hours	4 hours	3 hours	4 hours	4 hours
- Coatable (80 µm DFT*)	6 hours	6 hours	6 hours	30 hours	30 hours
<b>Temperature resistance (dry warmth)</b>	150 °C	150 °C	150 °C	150 °C	150 °C
<b>Packaging</b>	12l (10 Coating / 2 Hardener)	20l (17,8 Coating / 2,2 Hardener)	20l (17,5 Coating/ 2,5 Hardener)	20l (18.1 Coating / 1.9 Hardener)	20l (17.5 Coating / 2.5 Hardener)
<b>Storage life</b>	Coating 1 year / Hardener 3 years	3 years	3 years	Coating 3 years / Hardener 2 years	Coating 3 years / Hardener 2 years

\* DFT = Dry film thickness

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Coating system according to Sheet 97

Primer	HEMPADUR TL/ZN 87260-19840 grey	70 µm
Edge protection	HEMPADUR TL97/ZP 87461 redbrown	80 µm
1 <sup>st</sup> Intermediate coat	HEMPADUR TL97/EG 87270 grey DB 703	80 µm
2 <sup>nd</sup> Intermediate coat	HEMPADUR TL97/EG 87270 grey DB 702	80 µm
Top coat	HEMPATHANE TL97/EG 87590 DB or HEMPETHANE TL97/RAL 87591 RAL	80 µm

Total dry film thickness 310 µm (390 µm)

## TL/TP-KOR Steel constructions Sheet 81

Steel substrate Blast cleaned as per ISO 8501-1, Sa 2½	Primer HEMPADUR TL/ZN 87260 2C-Epoxy-Zinc Dust	Top coat HEMPADUR TL81 17550 2C-Epoxy polyamide
<b>Color</b>	grey (19840) / redgrey (19830)	black (19990) / redblack (57370)
<b>Material Nos.</b>	687.03 / 687.04	681.11 / 681.12
<b>Density</b>	2,9 kg/l	1,5 kg/l
<b>Solids volume</b>	~ 66%	~ 76%
<b>Mixing ratio</b>	5:1 with hardener 89200	4:1 with hardener 89610
<b>Pot life</b>	8 hours (at 20 °C)	4 hours (at 20 °C)
<b>Application temperature</b>	≥ 5 °C - ≤ 40 °C	≥ 5 °C - ≤ 35 °C
<b>VOC content</b>	324 g/l	213 g/l
<b>Thinner</b>	08450	08450
<b>Consumption (theoretical)</b>	0.627 kg/m <sup>2</sup> at 70 µm (DFT)	0.158 kg/m <sup>2</sup> at 120 µm (DFT)
<b>Drying time at 23 °C and 50% humidity</b>		
- Dust-free	30 minutes	6 hours
- Dry to touch	4 hours	12 hours
- Coatable (80 µm DFT*)	6 hours	12 hours
<b>Temperature resistance (dry warmth)</b>	150 °C	140 °C
<b>Packaging</b>	12l (10 Coating / 2 Hardener)	20l (16 Coating / 4 Hardener)
<b>Storage life</b>	Coating 1 year / Hardener 3 years	Coating 1 year / Hardener 3 years

\* DFT = Dry film thickness

## TL/TP-KOR Steel constructions Sheet 86

Steel substrate Blast cleaned as per ISO 8501-1, Sa 2½	Primer HEMPEL `S GALVOSIL TL86/ZN 15860 2C-Ethylene-Silicate-Zinc Dust
<b>Color</b>	grey (19840)
<b>Material Nos.</b>	686.03
<b>Density</b>	2,65 kg/l
<b>Solids volume</b>	~ 64%
<b>Mixing ratio</b>	2,85:1 with Zinc Dust 97170
<b>Pot life</b>	4 hours (at 20 °C)
<b>Application temperature</b>	≥ 5 °C - ≤ 40 °C
<b>VOC content</b>	434 g/l
<b>Thinner</b>	08700
<b>Consumption (theoretical)</b>	0.414 kg/m <sup>2</sup> at 100 µm (DFT)
<b>Drying time at 23 °C and 50% humidity</b>	
- Dust-free	60 minutes
- Dry to touch	2 hours
- Coatable (80 µm DFT*)	16 hours
<b>Temperature resistance (dry warmth)</b>	400 °C
<b>Packaging</b>	15l (11,2 Liquid / 3,8 Zinc Dust)
<b>Storage life</b>	Coating 6 months / Hardener 3 years

\* DFT = Dry film thickness

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Coating system according to Sheet 81

Primer	HEMPADUR TL/ZN 87260-19840 grey	70 µm
1 <sup>st</sup> Top coat	HEMPADUR TL81 17550 black	120 µm
2 <sup>nd</sup> Top coat	HEMPADUR TL81 17550 redblack	120 µm
3 <sup>rd</sup> Top coat	HEMPADUR TL81 17550 black	120 µm
<b>Total dry film thickness</b>		<b>430 µm</b>

Coating system according to Sheet 86

Primer	HEMPEL `S GALVOSIL TL86/ZN 15860	100 µm
<b>Total dry film thickness</b>		<b>100 µm</b>

