

For product description refer to product data sheet 87591

General information:

1.1 Manufacturer	1.2 General description	1.3 Trade name of the manufacturer		1.4 Material-no.
HEMPEL (Germany) GmbH Hindenburgdamm 60 25421 Pinneberg	Primer 2-component epoxy-zinc dust	HEMPADUR TL/ZN 87260	base: HEMPADUR TL/ZN 87269 curing agent: CURING AGENT 89200	697.03/04/05
	Primer 2-component-epoxy-zinc phosphate	HEMPADUR TL97/ZP 87460	base: HEMPADUR TL97/ZP 87469 curing agent: CURING AGENT 89610	697.02
	Primer edge protection 2-component-epoxy-zinc phosphate	HEMPADUR TL97/ZP 87461	base: HEMPADUR TL97/ZP 87468 curing agent: CURING AGENT 89610	697.06
	intermediate- or top- coat 2-component epoxy micaceous iron oxide	HEMPADUR TL97/EG 87270	base: HEMPADUR TL97/EG 87279 curing agent: CURING AGENT 89610	697.12/13/14
	intermediate- or top- coat 2-component polyurethane	HEMPATHANE TL97/EG 87590	base: HEMPTHANE TL97/EG 87599 curing agent: CURING AGENT 89600	697.30 - 697.74
	top- coat 2-component polyurethane	HEMPATHANE TL97/RAL 87591	base: HEMPTHANE TL97/RAL 87598 curing agent: CURING AGENT 89600	697.75 - 697.99
Inspection body	Institute for Corrosion Protection Dresden Ltd			
Certification authority	Institute for Corrosion Protection Dresden Ltd			

Areas of use:

	YES	NO
Initial coating / complete restoration	X	
Repair / partial restoration		X
Suited for steel surfaces	X	
Suited for hot-dip galvanized steel surfaces		X
Suited for hot-dip galvanized steel surfaces (repair / partial restoration only)		X

Properties of coating materials:

Material-No.	Specific gravity (at 23°C)	Solid content		Tolerable storage conditions (shelf life, Temperature)
		Volume-%	Weight-%	
697.03/04/05	2,9	66	90	Minimum 12 Month at 5 to 30 °C
697.02	1,6	61	81	
697.06	1,6	61	81	
697.12/13/14	1,7	65	81,5	
697.30 - 74	1,4	57	76	
697.75 - .99	1,3	60	73,5	

Viscosity Blatt 97 (Rotation Viscometer CP4°/40 mm)

Product		Temperature C°	Rate of shear sec ⁻¹	Viscosity mPas
697.03/04/05 HEMPADUR TL/ZN 87260	base HEMPADUR TL/ZN 87269	20	20	1500 - 2300
	curing agent CURING AGENT 89200	20	20	300 - 500
697.02 HEMPADUR TL97/ZP 87460	Base HEMPADUR TL97/ZP 87469	20	20	1800 - 2600
	curing agent CURING AGENT 89610	20	20	150 - 350
697.06 HEMPADUR TL97/ZP 87461	Base HEMPADUR TL97/ZP 87468	20	20	1800 - 2600
	curing agent CURING AGENT 89610	20	20	150 - 350
697.12/13/14 HEMPADUR TL97/EG 87270	Base HEMPADUR TL97/EG 87279	20	20	1800 - 2600
	curing agent CURING AGENT 89610	20	20	150 - 350
697.30 - 74 HEMPATHANE TL97/EG 87590	Base HEMPATHANE TL97/EG 87599	20	20	600 - 1400
	curing agent CURING AGENT 89600	20	20	200 - 600
697.75 - .99 HEMPATHANE TL97/RAL 874591	Base HEMPATHANE TL97/RAL 87598	20	20	1000 - 1800
	curing agent CURING AGENT 89600	20	20	200 - 600

Material No.	Mixing ratio by weight, required mixing		Pot-life (h) after mixing ¹						Maximum allowed thinner addition ²		Name of Thinner Material- No.	Application methods: roller, brush, spray application For spray application information about pressure, nozzle orifice	
			5 kg can Temperature (°C)			25 kg can Temperature (°C)			Material temperature (°C)				
			10	20	30	10	20	30	5 - 10	10 - 15			
697.03/04/05 ³	19:1 weight	Stirring by machine for at least 5 min	12	8	6	12	8	6	5%	5%	697.150 HEMPEL'S EP-Thinner 08450	160 - 200 bar	0,38 - 0,66 mm
697.02 ³	15:1 weight		9	7	6	8	5	5				180 - 250 bar	0,23 - 0,48 mm
697.06													
697.12/13/14	14:1 weight		3	2	1,5	3	2	1,5			697.151 HEMPEL'S PUR-Thinner 08080	120 - 200 bar	
697.30 - .74	9:1 weight												
697.75 - .99	9:1 weight												

Surface preparation: preparation method, preparation grade, roughness degree			Material- No.	Allowed application conditions		Indicated film thickness (µm)	Resistance to sagging in µm applied at once on a vertical area ⁴				Theoretical consumption at 100 µm dry film thickness (kg/m²)
Steel	Zinc			Surface- temperature ⁵	Relative humidity (minimum, maximum (%))		Brush /roller		Spray		
	Hot-dip galvanised	Zinc Spraying					Wet	Dry	Wet	Dry	
Sa 2,5 PSa 2,5 PSt3 ⁶ remove foreign materials roughness medium (G)		Sealer: HEMPADUR 47200 20-40µm (10-15 % thinned)	697. 03/04/05	≥ 3°C - ≤ 40°C	≤ 85%	70 µm	170 µm	100-120 µm	250 µm	165 µm	2,275 m²/kg = 0,439kg/m²
			697.02			80 µm	200 µm	120-130 µm	275 µm	170 µm	3,647 m²/kg = 0,274 kg/m²
			697.06				200 µm	120-130 µm	325 µm	200 µm	3,500 m²/kg = 0,286 kg/m²
primer free of grease, oil, dust, chalking products and other impurities	Sweep blasting, free of grease, oil, flux rests and corrosion- products	697. 12/13/14	225 µm				120-130 µm	250 µm	140 µm	3,786 m²/kg = 0,264 kg/m²	
Intermediate coating free of grease, oil, dust, chalking products and other impurities	Intermediate coating free of grease, oil, dust, chalking products and other impurities	697. 30 - 74	200 µm					225 µm		4,231 m²/kg = 0,236 kg/m²	
			697. 75 - 99								

Material- No.	Drying time (h) for a dry film thickness of 80 µm						Minimum Overcoat interval (h) for a dry film thickness of 80 µm and a surface temperature of			Maximum Overcoat interval
	Dryness degree 1 (surface dry)			Dryness degree 6 (dry to handle)						
	7°C, 85% relative humidity	23°C, 50% relative humidity	30°C, 50% relative humidity	7°C, 85% relative humidity	23°C, 50% relative humidity	30°C, 50% relative humidity	10°C	20°C	30°C	
697.03/04/05	0,75	0,5	10 min	8	4	3	4	2	1,5	12 month ⁷
697.02	1		25 min	16	3	2	4		1,5	14 days
697.06										
697.12/13/14	1	0,5	25 min							
697.30 - .74	3	1	45 min	24	6	4	24	6	4	18 month ⁷
697.75 - .99										not applicable

1 The coating material has to be used during the indicated time, in order to reach the guaranteed quality

2 To improve the application

3 No roller application if used as first primer

4 Surface temperature 23°C

5 Surface temperature > 3°C above the dew point

6 PSt 3 cleaning only on weld seam

7 High pressure cleaning 120-150 bar, 80 °C water temperature, rotating nozzle, 30 cm nozzle distance to surface, to check adhesion carry out test areas.

Safety: Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult Hempel Material Safety Data Sheets and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin and eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well ventilated areas.

Issued by: HEMPEL A/S - 87591

These Application Instructions supersede those previously issued.

For explanations, definitions and scope see "Explanatory Notes" available on www.hempel.com. Data, specifications, directions and recommendations given in this data sheet represent only test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use of the Products herein must be determined exclusively by the Buyer and/or User. The Products are supplied and all technical assistance is given subject to Hempel's general conditions of sales, delivery and service, unless otherwise expressly agreed in writing. The Manufacturer and Seller disclaim, and Buyer and/or User waive all claims involving, any liability, including but not limited to negligence, except as expressed in said general conditions for all results, injury or direct or consequential losses or damages arising from the use of the Products as recommended above, on the overleaf or otherwise. Product data are subject to change without notice and become void five years from the date of issue.