

47200: BASE 47209 : CURING AGENT 97100

Description:	HEMPADUR 47200 is a two-component, polyamine adduct cured epoxy paint with a very short drying time. Contains micaceous iron oxide and zinc phosphate. The product cures at temperatures above -10°C/14°F and form a tough and hardwearing coating.
Recommended use:	As a fast drying primer or intermediate coat in HEMPADUR systems especially suited for fast recoatable shop applications. Can be specified for on-site application. The product can also be specified where long overcoating intervals to polyurethane topcoats are expected (typically as travel coat).
Service temperature:	Maximum, dry exposure only: 120°C/248°F
Certificates/Approvals:	Complies with EU Directive 2004/42/EC: subcategory j.
Availability:	Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Shade nos/Colours:	13610* / Grey.
Finish:	Flat
Volume solids, %:	65 ± 1
Theoretical spreading rate:	6.5 m ² /l [260.7 sq.ft./US gallon] - 100 micron/4 mils
Flash point:	30 °C [86 °F]
Specific gravity:	1.5 kg/litre [12.9 lbs/US gallon]
Surface-dry:	20 minute(s) 20°C/68°F
Through-dry:	2 hour(s) 20°C/68°F
Fully cured:	7 day(s) 20°C/68°F
VOC content:	344 g/l [2.9 lbs/US gallon]
	<i>*other shades according to assortment list.</i>
	<i>The physical constants stated are nominal data according to the HEMPEL Group's approved formulas.</i>

APPLICATION DETAILS:

Version, mixed product:	47200
Mixing ratio:	BASE 47209 : CURING AGENT 97100 4 : 1 by volume
Application method:	Airless spray / Air spray / Brush
Thinner (max.vol.):	08450 (5%) / 08450 (15%) / 08450 (5%)
Pot life:	3 hour(s) 20°C/68°F
Nozzle orifice:	0.015 - 0.021 "
Nozzle pressure:	150 bar [2175 psi] (Airless spray data are indicative and subject to adjustment)
Cleaning of tools:	HEMPEL'S TOOL CLEANER 99610 / HEMPEL'S THINNER 08450
Indicated film thickness, dry:	100 micron [4 mils] see REMARKS overleaf
Indicated film thickness, wet:	175 micron [7 mils]
Overcoat interval, min:	see REMARKS overleaf
Overcoat interval, max:	see REMARKS overleaf

Safety:	Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult HEMPEL Safety Data Sheets and follow all local or national safety regulations.
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SURFACE PREPARATION:	<p>New steel: Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Abrasive blasting to minimum Sa 2½ (ISO 8501-1: 2007) with a surface profile corresponding to Rugotest No. 3, N9a to N10, preferably BN9a to BN10, Keane-Tator Comparator, 2.0 G/S or ISO Comparator, Medium (G). For temporary protection, if required, use a suitable shopprimer. All damage of shopprimer and contamination from storage and fabrication should be thoroughly cleaned prior to final painting.</p> <p>Repair and maintenance: Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Remove all rust and loose material by wet or dry abrasive blasting or power tool cleaning. Feather edges to sound and intact areas. After wet abrasive blasting hose down the surface with fresh water and allow drying. Touch up bare spots with: specified HEMPADUR paint</p>								
APPLICATION CONDITIONS:	Use only where application and curing can proceed at temperatures above: -10°C/14°F. The temperature of the paint itself should be above: 15°C/59°F. Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation. In confined spaces provide adequate ventilation during application and drying.								
PRECEDING COAT:	None, or as per specification.								
SUBSEQUENT COAT:	According to specification. Recommended systems are: HEMPADUR or HEMPATANE								
REMARKS:									
VOC - EU Directive 2004/42/EC:	<table><tr><th>Product</th><th>As supplied</th><th>15 vol. % thinning</th><th>Limit phase II, 2010</th></tr><tr><td>4720013610</td><td>344 g/l</td><td>421 g/l</td><td>500 g/l</td></tr></table> <p>For VOC of other shades, please refer to Safety Data Sheet.</p>	Product	As supplied	15 vol. % thinning	Limit phase II, 2010	4720013610	344 g/l	421 g/l	500 g/l
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4720013610	344 g/l	421 g/l	500 g/l						
Colours/Colour stability:	Has a tendency to yellow after application. This will have no influence on the performance.								
Weathering/service temperatures:	The natural tendency of epoxy coatings to chalk in outdoor exposure and to become more sensitive to mechanical damage and chemical exposure at elevated temperatures is also reflected in this product.								
Induction time:	In order to obtain the best possible spray properties, mix the components thoroughly and allow the mixture to pre-react for 10 - 15 minutes before use (Induction time).								
Application(s):	Irregular surfaces: Similar to other very fast drying/curing epoxies; this product is sensitive towards the geometry of irregular surfaces. Special care should be taken in relation to irregular surfaces (welding seams, undercuts, corners etc.) as application with an excessive film thickness may result in cracking.								
Film thicknesses/thinning:	Film thickness: The recommended nominal dry film thickness (NDFT) is 75-200 micron /3-8 mils. Overthickness on irregular surfaces shall be avoided or highly controlled. Overthickness on overlapping areas, corners, welding seams, etc should be less than 400 µm/16 mils DFT.								
Overcoating:	Overcoating intervals related to later conditions of exposure: If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion. Before overcoating after exposure in contaminated environment, clean the surface thoroughly with high pressure fresh water hosing and allow drying.								

A specification supersedes any guideline overcoat intervals indicated in the table.

Environment	Atmospheric, medium					
Surface temperature:	-10°C (14°F)		0°C (32°F)		20°C (68°F)	
	Min	Max	Min	Max	Min	Max
HEMPADUR	9 h	Ext.	5 h	Ext.	1 h	Ext.
HEMPATHANE	9 h	Ext.	5 h	Ext.	1 h	Ext.

NR = Not Recommended, Ext. = Extended, m = minute(s), h = hour(s), d = day(s)

Overcoating intervals:	<p>A completely clean surface is mandatory to ensure intercoat adhesion, especially at long overcoating intervals. Any dirt, oil, grease, and other foreign matter must be removed with suitable detergent followed by (high pressure) fresh water cleaning. Salts to be removed by fresh water hosing. Any degraded surface layer, as a result of a long exposure period, must be removed. Water jetting may be relevant to remove any degraded surface layer and may also replace the above mentioned cleaning methods when properly executed. Consult HEMPEL for specific advice if in doubt. To check whether the quality of the surface cleaning is adequate, a test patch may be relevant.</p>
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Note: **HEMPADUR 47200 For professional use only.**

ISSUED BY: HEMPEL A/S

4720013610

This Product Data Sheet supersedes 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.

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