



HEMPADUR 45141 / HEMPADUR 45143

45141: BASE 45148: CURING AGENT 97820
45143: BASE 45148: CURING AGENT 97430

Description:	HEMPADUR 45141/45143 is a two-component, polyamide adduct cured epoxy paint with good wetting properties and low water permeability. It is selfpriming and forms a hard and tough coating which has good resistance against abrasion and impact as well as to seawater, mineral oils, aliphatic hydrocarbons and splashes from petrol and related products. Harmless to grain cargoes.
Recommended use:	<ol style="list-style-type: none">1. As a high build primer, intermediate and/or finishing coat in (heavy duty) paint systems according to specification. (As a finishing coat where a cosmetic appearance is of less importance).2. For repair and maintenance work at application temperatures above -10°C/15°F on hatch covers, decks, in cargo holds, etc.3. As a ballast tank coating. HEMPADUR 45143 is intended for use in cold/temperate climates, HEMPADUR 45141 for warmer climates - see APPLICATION CONDITIONS overleaf.
Service temperature:	Maximum, dry exposure only: 150°C/302°F Ballast water service. Resists normal ambient temperatures at sea (Avoid long-term exposure to negative temperature gradients). Other water service: 40°C/104°F (no temperature gradient) Other liquids. Contact HEMPEL
Certificates/Approvals:	Complies with Section 175.300 of U.S. Federal Regulations in respect of carriage of foodstuff (FDA) for tanks larger than 2006 m ³ /530,000 US gallon. Approved as a ballast tank coating by Germanischer Lloyd, Germany. Accepted as a corrosion control coating by Maritime Register of Shipping, Russia. Classified as class 1 material according to BS 476: Part 7: 1997 (fire testing). Tested for non-contamination of grain cargo at the Newcastle Occupational Health & Hygiene, Great Britain. EC-type Examination Certificate: France Complies with EU Directive 2004/42/EC: subcategory j.
Availability:	Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Version, mixed product:	45141	45143
Shade nos/Colours:	50630*/ Red	50630*/ Red.
Finish:	Semi-gloss	Semi-gloss
Volume solids, %:	60 ± 1	60 ± 1
Theoretical spreading rate:	4 m ² /l [160.4 sq.ft./US gallon] - 150 micron/6 mils	4 m ² /l [160.4 sq.ft./US gallon] - 150 micron/6 mils
Flash point:	25 °C [77 °F]	26 °C [78.8 °F]
Specific gravity:	1.3 kg/litre [10.5 lbs/US gallon]	1.3 kg/litre [10.9 lbs/US gallon]
Surface dry:	4 approx. hour(s) 20°C/68°F	5 hour(s)
Dry to touch:	7 approx. hour(s) 20°C/68°F	11 hour(s)
Fully cured:	7 day(s) 20°C/68°F	20 day(s)
VOC content:	366 g/l [3 lbs/US gallon]	375 g/l [3.1 lbs/US gallon]

**other shades according to assortment list.*

The physical constants stated are nominal data according to the HEMPEL Group's approved formulas.

APPLICATION DETAILS:

Version, mixed product:	45141	45143
Mixing ratio:	BASE 45148: CURING AGENT 97820 3:1 by volume	BASE 45148: CURING AGENT 97430 3:1 by volume
Application method:	Airless spray / Brush	Airless spray / Brush
Thinner (max.vol.):	08450 (5%) / 08450 (5%)	08450 (5%) / 08450 (5%)
Pot life (Airless spray):	2 hour(s) 20°C/68°F	2 hour(s) 15°C/59°F
Pot life (Brush):	4 hour(s) 20°C/68°F	4 hour(s) 15°C/59°F see REMARKS overleaf
Nozzle orifice:	0.019 to 0.023 "	
Nozzle pressure:	250 bar [3625 psi] (Airless spray data are indicative and subject to adjustment)	
Cleaning of tools:	HEMPEL'S TOOL CLEANER 99610 or HEMPEL'S THINNER 08450	
Indicated film thickness, dry:	150 micron [6 mils] see REMARKS overleaf	
Indicated film thickness, wet:	250 micron [10 mils]	
Recoat interval, min:	According to separate APPLICATION INSTRUCTIONS	
Recoat interval, max:	According to separate APPLICATION INSTRUCTIONS	

**HEMPADUR 45141 45143****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.

SURFACE PREPARATION:

New steel, ballast tanks and similar areas: 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 equivalent to Rugotest No. 3, min. N9a, Keane-Tator Comparator (G), 2 mils segments 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. For repair and touch-up use: HEMPADUR 45151 / HEMPADUR 45143.

Stainless steel: Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Ballast tanks of chemical carriers to be abrasive blast cleaned to a uniform, sharp, dense profile (Rugotest No. 3, BN9a, ISO Comparator Medium (G), Keane-Tator Comparator 2.0 G/S) corresponding to Rz minimum 50 micron.

Repair and maintenance: Remove oil and grease, etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by power tool cleaning to minimum St 3 (ISO 8501-1:1988) (spot-repairs) or by abrasive blasting to min. Sa 2, preferably to Sa 2½ (ISO 8501-1:1988). Improved surface preparation will improve the performance. As an alternative to dry cleaning, water jetting to min. Wa 2½ (ISO 8501-4:2006)(or according to specification), may be used. A flash-rust degree of maximum M (ISO 8501-4:2006) is acceptable before application. Feather edges to sound and intact paint. Dust off residues.

On pit-corroded surfaces, excessive amounts of salt residues may call for water jetting, wet abrasive blasting, alternatively dry abrasive blasting, high pressure fresh water hosing, drying, and finally, dry abrasive blasting again.

APPLICATION CONDITIONS:

HEMPADUR 45143 is intended for curing conditions down to -10°C/14°F, HEMPADUR 45141 is to be selected at warmer climates. A shift from 45143 to 45141 is most convenient to take place when the temperature is between 15°C/59°F and 25°C/77°F, however, HEMPADUR 45141 may be used for curing conditions down to 0°C/32°F in cases where surfaces are not to be immersed. Optimal spraying properties are obtained at paint temperatures of 18- 22°C/64-72°F. In warm climates, the paint should be stored in a cool place. At paint temperatures below 15°C/59°F or in the case of very long spray hoses, thinning may be necessary. This will cause lower film build and longer drying time. 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:

None, or as per specification.

REMARKS:**VOC - EU Directive 2004/42/EC:**

Product	As supplied	5 vol. % thinning	Limit phase II, 2010
4514150630	366 g/l	390 g/l	500 g/l
4514350630	375 g/l	399 g/l	500 g/l

For VOC of other shades, please refer to Safety Data Sheet.

Colours/Colour stability:

Light shades will have a tendency to yellow when exposed to sunshine and darken when exposed to heat.

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:

If the paint temperature, as an exception, is below approx. 10°C/50°F, allow the mixture to pre-react 30 minutes before use.

Film thicknesses/thinning:

May be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate and may influence drying time and recoating interval. Normal range dry is: 125-175 micron/5-7 mils

Recoating intervals:

Recoating intervals related to later conditions of exposure: See separate APPLICATION INSTRUCTIONS

Before recoating after exposure in contaminated environment, clean the surface thoroughly with high pressure fresh water hosing and allow drying. If the maximum recoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

Note:

HEMPADUR 45141 45143 For professional use only.

ISSUED BY:

HEMPEL A/S
4514150630



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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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