



# Product Data

## HEMPADUR MASTIC 45880/ HEMPADUR MASTIC 45881

High temperatures: 45881: BASE 45889 with CURING AGENT 95881  
Low to medium temperatures: 45880: BASE 45889 with CURING AGENT 95880

### Description:

HEMPADUR MASTIC 45880/45881 is a two-component polyamide adduct cured, high solids, high build epoxy paint. It forms a hard and tough coating, has good wetting properties and low temperature curing.

### Recommended use:

As a selfprimed, surface tolerant paint system or as an intermediate or finishing coat in heavy duty paint systems where low VOC and high film build are required. Multipurpose coating as per specification for maintenance and minor repairs in immersed areas including ballast tanks and underwater hull specifically in those cases where a need for few products outweighs more specialised coatings. Can be specified where extended recoating properties for polyurethane topcoats are requested (typically travel coating). May be used directly on cured zinc silicate (GALVOSIL products) or spray-metallized surfaces to minimize popping. As a topcoat where the usual outdoor cosmetic appearance of epoxy paints is acceptable.

### Service temperatures:

Maximum, dry exposure only: 120°C/248°F

### Certificates/Approvals:

Tested for non-contamination of grain cargo at the Newcastle Occupational Health, Great Britain. Complies with Section 175.300 of the Code of Federal Regulations in respect of carriage of dry foodstuffs (FDA) in spaces with an internal surface area larger than 1000 m<sup>2</sup>/10,750 sq.ft.

HEMPADUR MASTIC 45881 is in accordance with Aramco's specification APCS 1, APCS 12, APCS 26 and 26T.

Classified as class 1 material according to BS 476: Part 7: 1997 (fire testing).

HEMPADUR MASTIC 45880 is approved as a low flame spread material by Danish, French, Spanish, Singaporean, Malaysian and Indonesian authorities according to IMO resolution MSC 61 (67).

Has a French, Spanish, Danish, Singaporean, Malaysian and Indonesian EC-type Examination Certificate.

Complies with EU Directive 2004/42/EC, subcategory j.

Please see REMARKS overleaf.

### Availability:

Part of Group Assortment. Local availability subject to confirmation.

### PHYSICAL CONSTANTS:

Version, mixed product:  
Colours/Shade nos:  
Finish:  
Volume solids, %:  
Theoretical spreading rate:

#### 45880

Grey/12170\*  
Semi-gloss  
80 ± 1  
4 m<sup>2</sup>/litre - 200 micron  
160 sq.ft./US gallon - 8 mils  
39°C/102°F  
1.5 kg/litre - 12.5 lbs/US gallon  
4 (approx) hours at 20°C/68°F  
7 days at 20°C/68°F  
220 g/litre - 1.8 lbs/US gallon

#### 45881

Grey/12170\*  
Semi-gloss  
80 ± 1  
4 m<sup>2</sup>/litre - 200 micron  
160 sq.ft./US gallon - 8 mils  
39°C/102°F  
1.5 kg/litre - 12.5 lbs/US gallon  
3 (approx) hours at 30°C/86°F  
5 days at 30°C/86°F  
220 g/litre - 1.8 lbs/US gallon

\*Wide range of colours available via Hempel's MULTI-TINT system.

The physical constants stated are nominal data according to the HEMPEL Group's approved formulas. They are subject to normal manufacturing tolerances and where stated, being standard deviation according to ISO 3534-1.

### APPLICATION DETAILS:

Version:  
Mixing ratio:

#### 45880

Base 45889 : Curing agent 95880  
3 : 1 by volume  
Airless spray      Brush (touch up)  
Depending on purpose usually less than 5% THINNER 08450 (See REMARKS overleaf)  
1 hour (20°C/68°F) (Airless spray)  
2 hours (20°C/68°F) (Brush)

#### 45881

Base 45889 : Curing agent 95881  
3 : 1 by volume  
Airless spray      Brush (touch up)  
1½ hour (30°C/86°F) (Airless spray)  
2 hours (30°C/86°F) (Brush)

Nozzle orifice:  
Nozzle pressure:  
Cleaning of tools:  
Indicated film thickness, dry:  
Indicated film thickness, wet:  
Recoat interval, min/max:

.017"-.023" (See separate APPLICATION INSTRUCTIONS)  
250 bar/3600 psi (Airless spray data are indicative and subject to adjustment)  
HEMPEL'S TOOL CLEANER 99610 or HEMPEL'S THINNER 08450  
200 micron/8 mils (see REMARKS overleaf)  
250 micron/10 mils  
According to separate APPLICATION INSTRUCTIONS

### 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



## HEMPADUR MASTIC 45880/45881

### SURFACE PREPARATION:

**New steel:** When used as an intermediate or finishing coat please refer to the data sheet for the preceding GALVOSIL or HEMPADUR primer. When used as a primer please refer to the specification.

**Zinc silicate painted or spray-metallized surfaces:** Remove oil and grease, etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Zinc salts (white rust) must be removed by high pressure hosing combined with rubbing with a stiff nylon brush if necessary. It is recommended to recoat spray-metallized surfaces as soon as possible to avoid possible contamination.

**Concrete:** Remove slip agent and other possible contaminants by emulsion washing followed by high pressure hosing with fresh water. Remove scum layer and loose matter to a hard, rough and uniform surface, preferably by abrasive blasting, possibly by other mechanical treatment or acid etching. Seal surface with suitable sealer, as per relevant painting specification.

**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 2 (spot-repairs) or by abrasive blasting to min. Sa 2, preferably to Sa 2½. Improved surface preparation will improve the performance of HEMPADUR MASTIC 45880/45881. 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:

Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation. Use only when application and curing can proceed at temperatures above -5°C/23°F (recommended lowest temperature is 0°C/32°F) for HEMPADUR MASTIC 45880 and above approx 15°C/59°F for HEMPADUR MASTIC 45881. The temperature of the paint itself should be 15°C/59°F or above, but advantageously below approximately 30°C/86°F to secure proper application properties. Optimal spraying properties are obtained at a paint temperature of 18-22°C/64-72°F. In warmer climates, the paint should be stored in a cool place and the paint temperature should preferably be kept below 30°C/86°F. In confined spaces provide adequate ventilation during application and drying. In cases where faster drying at very low temperatures is required, HEMPADUR MASTIC 45880 may advantageously be replaced by HEMPADUR 45143. Please also see separate APPLICATION INSTRUCTIONS.

PRECEDING and SUBSEQUENT COAT: None or according to specification.

REMARKS:  
VOC - EU directive  
2004/42/EC:

45880			
	As supplied	5 vol. % thinning	Limit phase II, 2010
VOC in g/l	220	250	500
45881			
	As supplied	5 vol. % thinning	Limit phase II, 2010
VOC in g/l	220	250	500

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

**Certificates** have been issued under the former quality number 4588.

Colours/Colour-stability:

Certain lead-free red and yellow colours may discolour when exposed to chlorine- containing atmosphere.

Leaded colours may become discoloured when exposed to sulphide-containing atmosphere.

Like other epoxy coatings in white/whitish colour a yellowing may take place in cases of application under unfavourable weather conditions, especially sudden drops in temperature during drying and initial cure and/or lack of ventilation.

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.

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 125-200 micron/5-8 mils. May be specified in lower film thickness for which purpose additional thinning is required, please see separate APPLICATION INSTRUCTIONS.

**Avoid application of excessive film thicknesses.**

Shades:

The product is also available in a Micaceous Iron Oxide (MIO) pigmented shade (Shade no. 12430 – reddish grey ) and in aluminium pigmented shades (Shade nos. 19870 - dark alu and 19000 - light alu).



### HEMPADUR MASTIC 45880/45881

Application onto zinc silicate or spray-metallized surfaces (thinning): It is recommended to apply HEMPADUR MASTIC 45880/45881 by using a "mist-coat" procedure **Provided** the paint temperature is approximately above 20°C/68°F: A thin, undiluted coat is applied (the mist coat) and after a few minutes, a second coat is applied in the full specified film thickness. If the paint temperature is below 20°C/68°F, thinning (max 15%) may be required.

Curing agents: Curing agents 95880 and 95881 are hazy. This is intended and has no negative influence on the performance.

Note: **HEMPADUR MASTIC 45880/45881 is for professional use only.**

ISSUED BY: HEMPEL A/S - 4588012170C0013/4588112170C0011

*This Product Data Sheet supersedes those previously issued.*

*For explanations, definitions and scope, see "Explanatory Notes" in the HEMPEL Book.*

*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.*



# Application Instructions

For product description refer to product data sheet

## HEMPADUR MASTIC 45880/ HEMPADUR MASTIC 45881

High temperatures: 45881: BASE 45889 with CURING AGENT 95881  
Low to medium temperatures: 45880: BASE 45889 with CURING AGENT 95880

### Scope:

These Application Instructions cover surface preparation, application equipment and application details for HEMPADUR MASTIC 45880/45881.

### Surface preparation:

**General:** In order to obtain best performance, abrasive blast cleaning is recommended. However, HEMPADUR MASTIC 45880/45881 has "surface tolerant" properties and offers higher performance than many other coatings when applied to surfaces mechanically cleaned only (salts, oil, grease etc. shall always be removed).

Remove oil and grease with suitable detergent, salt and other contaminants by (high pressure) fresh water cleaning.

#### NEW STEEL:

When used as intermediate and/or finishing coat, surface preparation according to Product Data Sheet for the preceding primer coat (HEMPADUR primers). When used as a selfpriming coat, surface preparation according to specification.

#### When applied to GALVOSILS:

HEMPADUR MASTIC 45880/45881 can be applied when the GALVOSIL is cured. Consult APPLICATION INSTRUCTIONS for the relevant GALVOSIL. Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by high pressure fresh water cleaning. After exposure to high humidity, zinc salts, "white rust", must be removed carefully by high pressure fresh water cleaning, if necessary combined with scrubbing with stiff nylon brushes.

#### REPAIR AND MAINTENANCE:

##### Spot-repairs:

Clean damaged areas thoroughly by power tool cleaning to minimum St 2 (spot-repairs) or by abrasive blasting to minimum Sa 2, preferably Sa 2½. Improved surface preparation will improve the performance of HEMPADUR MASTIC 45880/45881. As an alternative, water jetting to minimum 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 areas. Brush off loose material. Touch up to full film thickness.

**Compatibility:** HEMPADUR MASTIC 45880/45881 **may** be used in connection with other generic paint systems than epoxy and polyurethanes. It is recommended to make a test patch. In any case it is a must that the old paint system is tightly adhering and is properly prepared before the touch-up is performed.

##### Full coating:

**Compatibility with old system:** In general full compatibility can be expected with old epoxy systems. A test patch should always be performed before full coating is decided. If the old epoxy is not weathered/chalked or if it is topcoated with polyurethane, it is recommended to roughen the surface before recoating. Furthermore, very thorough cleaning is a must. Any dirt, chalked surface material, oil and grease should be removed with suitable detergent followed by high pressure fresh water hosing of the entire surface.

**Removal of old system:** Full coating after complete mechanical removal of an old paint system is possible too. Yet, it must be considered that mechanical cleaning by disc grinding or by rotating wire brushing may produce a very smooth surface which reduce the adhesive forces of the primer coat

# HEMPEL

## Application Instructions



## HEMPADUR MASTIC 45880/45881

**Note:** Another risk is remains of a hard black rust scale being cleaned to an apparent brightness without showing any adhesive defects. Yet, the exposure to open air during cleaning may have started a further oxidation of the hard black rust making it mechanically weak and of poor adhesion to the underlying steel surface. Later, during service, the scale plus overlaying paint material may flake off.

### When used for immersion service, repair:

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 St 3 (minor areas) or by abrasive blasting to min. Sa 2, preferably Sa 2½. Improved surface preparation will improve the performance of HEMPADUR MASTIC 45880/45881. As an alternative to dry cleaning, water jetting to minimum Wa 2½ (ISO 8501-4:2006), may be used. A flash rust degree of M, preferably L (ISO 8501-4:2006) is acceptable before application. Feather edges to sound intact areas. Dust off residues. Touch up to full film thickness

**Note:** On old steel surfaces having been exposed to salty water, excessive amounts of salt residues in pittings may call for high pressure water jetting, wet abrasive blasting, alternatively dry abrasive blasting, high pressure fresh water hosing, drying, and finally, dry abrasive blasting again.

### Application equipment:

HEMPADUR MASTIC 45880/45881 being a high solids and a relatively high viscosity material, may require special measures to be taken at application.

### Recommended airless spray equipment:

Pump ratio:	min. 45:1
Pump output:	12 litres/minute (theoretical)
Input pressure:	min. 6 bar/90 psi
Spray hoses:	max. 100 metres/300 feet, ½" internal diameter max. 30 metres/100 feet, 3/8" internal diameter max. 6 metres/20 feet, 1/4" internal diameter

Regular surfaces:	Complicated surfaces (and touch up):
Nozzle size: .021" through .023"	Nozzle size: .017" through .021"
Fan angle: 60°.	Fan angle: 40°.

After finishing the application, clean the equipment immediately with THINNER 08450 or HEMPEL'S TOOL CLEANER 99610.

**Note:** Increasing hose diameter may increase paint flow, thereby improving the spray fan. If longer hoses are necessary it may be necessary to raise the pump ratio to 60:1, maintaining the high output capacity of the pump.

Alternatively up to approx. 5% THINNER 08450 may be added, but thinning must be done with care as the anti-sagging properties are drastically reduced by overthinning.

Airless spray data are indicative and subject to adjustment.

### Induction time:

Should the paint temperature as an exception be 15°C/59°F or below, it is an advantage to allow the two components to pre react before application. This is especially relevant in the case of substrate temperatures also being below 15°C/59°F.

In case of a paint or substrate temperature at 15°C/59°F, an induction time of 15 minutes is recommended. In case of a paint or substrate temperature at 10°C/50°F, an induction time of 25 minutes is recommended. In order to obtain proper application properties, the paint temperature should preferably never be below 10°C/50°F. Yet for substrate temperatures below 10°C/50°F an induction time of 30 minutes is recommended.





## HEMPADUR MASTIC 45880/45881

### Spray application:

**Film-build/continuity:** With this paint material applied in one/few coat(s) it is of special importance that a continuous, pinhole-free paint film is obtained at application of each coat. An application technique which will ensure good film formation on **all** surfaces must be adopted. It is very important to use nozzles of the correct size, not too big, and to have a proper, uniform distance of the spray gun to the surface, 30-50 cm should be aimed at. Furthermore, great care must be taken to cover edges, openings, rear sides of stiffeners etc. Thus, on these areas application of a stripe coat will therefore be good painting practice. To obtain good and steady atomizing, the viscosity of the paint must be suitable and the spray equipment must be sufficient in output pressure and capacity. At high working temperatures, use of extra thinner may be necessary to avoid dust-spray.

The paint layer must be applied homogeneously and as close to the specification as possible. Avoid exaggerated film thickness due to the risk of sagging, cracks and solvent retention. The paint consumption must be controlled.

The finished coating must appear as a homogeneous film with a smooth surface and irregularities such as dust, dry spray, abrasives, should be remedied.

### Brush and roller application:

At application with hand tools, brush, but especially by roller the natural tendency to a more uneven paint film obtained by these methods, is to be counteracted by more coats applied. If at all possible each coat is to be applied across the preceding one - in general follow good painting practise.

On **poorly prepared surfaces** it is always recommended to apply the first coat by brush. Extra thinning will facilitate the penetration of the paint material, but will also require an extra layer to be applied.

### Wet/dry film thickness:

Please note that the thixotropic nature of HEMPADUR MASTIC 45880/45881 may give a rather "wavy" surface of the paint just after application. This smoothens at drying, but can make it necessary to let the wet film readings be of a higher value than indicated. In many cases the wet film thickness, reading should be 25-50 micron/1-2 mils higher than calculated. As the wavy surface becomes more smooth during drying these extra wet film thickness readings will not cause a higher paint consumption than otherwise stipulated.

### Film thickness/thinning:

HEMPADUR MASTIC 45880/45881 is normally specified in 125-200 micron/5-8 mils. Depending on ambient conditions, usually maximum 5% thinning with THINNER 08450 is relevant, however, increasing at high temperatures to ensure proper film formation and avoid dust spray. May be specified down to 75 micron/3 mils. To obtain optimum film formation in film thicknesses lower than 125 micron/5 mils dry film thickness additional thinning with 5-10% THINNER 08450 is recommended.

### Pot life:

When measured under standard conditions the pot life is 1 hour at 20°C/68°F for HEMPADUR MASTIC 45880 respectively 1½ hours at 30°C/86°F for HEMPADUR MASTIC 45881. However, for a 20 litres/5 US gallons mix, and used under warm climate conditions, the heat developed by the chemical reaction between BASE and CURING AGENT may make the corresponding practical pot life shorter. Therefore: At high temperatures, use the paint immediately after mixing irrespective of equipment.

### Attached:

Tables of "physical data versus temperature".



## HEMPADUR MASTIC 45880/45881

### Physical data versus temperature:

Drying time and recoating interval vary with film thickness, temperature and later exposure conditions:

### HEMPADUR MASTIC 45880 in a dry film thickness of 100-150 micron/4-6 mils:

Surface temperature:	-5°C/23°F	0°C/32°F	10°C/50°F	20°C/68°F	30°C/86°F	40°C/104°F
Drying time (approx)	3 days	36 hours	12 hours	4 hours	3 hours	2 hours
Curing time (approx)	2½ months	1 month	14 days	7 days	5 days	3 days
<b>MINIMUM recoating interval related to later conditions of exposure:</b>						
<b>Interval for recoating with HEMPADUR and HEMPATANE qualities</b>						
Atmospheric, medium	3½ days	45 hours	15 hours	5 hours	4 hours	3 hours
Atmospheric, severe	5 days	63 hours	21 hours	7 hours	5 hours	4 hours
Immersion <sup>1</sup>	7 days	3 days	24 hours	8 hours	6 hours	5 hours
<b>Interval for recoating with HEMPATEX qualities</b>						
Atmospheric, medium	3½ days	45 hours	15 hours	5 hours	4 hours	3 hours
Atmospheric, severe	3½ days	45 hours	15 hours	5 hours	4 hours	3 hours
<b>Interval for recoating with HEMUCRYL topcoats</b>						
Atmospheric, medium	N/R	N/R	12 hours	5 hours	4 hours	3 hours
Atmospheric, severe	N/R	N/R	18 hours	7 hours	5 hours	4 hours

1. Not relevant for HEMPATANE qualities

#### Notes:

- Avoid sudden drops in (substrate) temperatures during drying/initial curing. It is especially important that the substrate temperature does not drop significantly before application of the acrylic or polyurethane finish and that proper ventilation is maintained.
- If faster handling or recoating at lower temperatures is required, HEMPADUR 45143 may be used.
- In case of low temperatures, it is recommended that HEMPADUR MASTIC 45880 has been given a proper induction time before application. Under such conditions, consider paint temperature equal to substrate temperature and follow the rules given on page 2.

### HEMPADUR MASTIC 45880 in a dry film thickness of 200 micron/8 mils:

Surface temperature:	-5°C/23°F	0°C/32°F	10°C/50°F	20°C/68°F	30°C/86°F	40°C/104°F
Drying time (approx)	6 days	54 hours	18 hours	6 hours	5 hours	4 hours
Curing time (approx)	2½ months	1 month	14 days	7 days	5 days	3 days
<b>MINIMUM recoating interval related to later conditions of exposure:</b>						
<b>Interval for recoating with HEMPADUR and HEMPATANE qualities</b>						
Atmospheric, medium	5 days	63 hours	21 hours	7 hours	5 hours	4 hours
Atmospheric, severe	7 days	4 days	30 hours	10 hours	8 hours	6 hours
Immersion <sup>1</sup>	8½ days	4½ days	36 hours	12 hours	9 hours	7 hours
<b>Interval for recoating with HEMPATEX qualities</b>						
Atmospheric, medium	5 days	63 hours	21 hours	7 hours	5 hours	4 hours
Atmospheric, severe	5 days	63 hours	21 hours	7 hours	5 hours	4 hours
<b>Interval for recoating with HEMUCRYL topcoats</b>						
Atmospheric, medium	N/R	N/R	21 hours	7 hours	5 hours	4 hours
Atmospheric, severe	N/R	N/R	30 hours	10 hours	8 hours	6 hours

1. Not relevant for HEMPATANE qualities

#### Notes:

- Avoid sudden drops in (substrate) temperatures during drying/initial curing. It is especially important that the substrate temperature does not drop significantly before application of the acrylic or polyurethane finish and that proper ventilation is maintained.
- If faster handling or recoating at lower temperatures is required, HEMPADUR 45143 may be used.
- In case of low temperatures, it is recommended that HEMPADUR MASTIC 45880 has been given a proper induction time before application. Under such conditions, consider paint temperature equal to substrate temperature and follow the rules given on page 2.



## HEMPADUR MASTIC 45880/45881

### HEMPADUR MASTIC 45880 (independent on dry film thicknesses):

Surface temperature:	-5°C/23°F	0°C/32°F	10°C/50°F	20°C/68°F	30°C/86°F	40°C/104°F
<b>MAXIMUM recoating interval related to later conditions of exposure:</b>						
<b>Interval for recoating with HEMPADUR qualities</b>						
Atmospheric, medium	Extended*	Extended*	Extended*	Extended*	Extended*	Extended*
Atmospheric, severe	Extended*	Extended*	Extended*	Extended*	Extended*	Extended*
Immersion <sup>1</sup>	3 months	3 months	2 months	1 months	23 days	15 days
<b>Interval for recoating with HEMPATANE topcoats</b>						
Atmospheric, medium	Extended*	Extended*	Extended*	Extended*	Extended*	Extended*
Atmospheric, severe	Extended*	Extended*	Extended*	Extended*	Extended*	Extended*
<b>Interval for recoating with HEMPATEX qualities</b>						
Atmospheric, medium	10 days	45 hours	36 hours	12 hours	9 hours	6 hours
Atmospheric, severe	10 days	45 hours	36 hours	12 hours	9 hours	6 hours
<b>Interval for recoating with HEMUCRYL topcoats</b>						
Atmospheric, medium	N/R	N/R	9 days	3 days	2 days	36 hours
Atmospheric, severe	N/R	N/R	4½ days	1½ days	1 day	18 hours

1. Depending on actual local conditions, extended maximum recoating intervals may apply.  
Please contact Hempel for further advice.

#### Notes:

- Avoid sudden drops in (substrate) temperatures during drying/initial curing.
- If faster handling is required at low temperatures, HEMPADUR 45143 may be used.

### HEMPADUR MASTIC 45881 in a dry film thickness of 100-150 micron/4-6 mils:

Surface temperature:	20°C/68°F	30°C/86°F	40°C/104°F
Drying time (approx)	4 hours	3 hours	2 hours
Curing time (approx)	7 days	5 days	3 days
<b>MINIMUM recoating interval related to later conditions of exposure:</b>			
<b>Interval for recoating with: HEMPADUR, HEMPATANE, HEMPATEX and HEMUCRYL qualities</b>			
Atmospheric, medium	5 hours	4 hours	3 hours
Atmospheric, severe	7 hours	6 hours	4 hours
Immersion <sup>1</sup> (only HEMPADUR qualities)	8 hours	6 hours	5 hours

### HEMPADUR MASTIC 45881 in a dry film thickness of 200 micron/8 mils:

Surface temperature:	20°C/68°F	30°C/86°F	40°C/104°F
Drying time (approx)	6 hours	5 hours	4 hours
Curing time (approx)	7 days	5 days	3 days
<b>MINIMUM recoating interval related to later conditions of exposure:</b>			
<b>Interval for recoating with: HEMPADUR, HEMPATANE, HEMPATEX and HEMUCRYL qualities</b>			
Atmospheric, medium	7 hours	6 hours	4 hours
Atmospheric, severe	10 hours	8 hours	6 hours
Immersion (only HEMPADUR qualities)	12 hours	10 hours	8 hours

### HEMPADUR MASTIC 45881 (independent on dry film thickness):

Surface temperature:	20°C/68°F	30°C/86°F	40°C/104°F
<b>MAXIMUM recoating interval related to later conditions of exposure:</b>			
<b>Interval for recoating with HEMPADUR qualities</b>			
Atmospheric, medium	Extended*	Extended*	Extended*
Atmospheric, severe	Extended*	Extended*	Extended*
Immersion	1 months	23 days	15 days
<b>Interval for recoating with HEMPATANE topcoats</b>			
Atmospheric, medium	Extended*	Extended*	Extended*
Atmospheric, severe	Extended*	Extended*	Extended*
<b>Interval for recoating with HEMPATEX qualities</b>			
Atmospheric	12 hours	9 hours	6 hours
<b>Interval for recoating with HEMUCRYL topcoats</b>			
Atmospheric, medium	3 days	2 days	1 day
Atmospheric, severe	1½ days	1 day	12 hours

\* Notes on extended recoating Intervals with HEMPADUR and HEMPATANE qualities





## HEMPADUR MASTIC 45880/45881

Extended recoating intervals can be utilised when the following is strictly observed:

- The surface shall be thoroughly cleaned from all sorts of contaminants including invisible deposits of water soluble salts, oil, grease and similar harmful chemical substances.
- Surfaces having any degraded layer from exposure to UV radiation, heat etc. must have this layer removed by mechanical cleaning methods like, water jetting, abrading or sweep blasting.
- The existing coating system must in all respects be sound and applied according to Product Data Sheets, Application Instructions and Specification,

It should be recognised that the optimal intercoat adhesion is best ensured by observing the interval between the stated minimum and "Cured Time". Utilising extended recoating intervals it should further be understood that by chemical nature the intercoat adhesion between HEMPADUR qualities are better than between HEMPADUR and HEMPATANE qualities. To determine whether the quality of the surface cleaning is adequate, a test patch may be relevant. However, such a test is not the final proof of long-term durability, but if the result is doubtful, repeated cleaning will be relevant. A more safe solution could be to refresh the surface with a new thin (diluted) coat of HEMPADUR MASTIC 45880/45881.

### 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 - 4588012170C0011/4588112170C0008

***This Product Data Sheet supersedes those previously issued.***

***For explanations, definitions and scope, see "Explanatory Notes" in the HEMPEL Book.***

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