

HEMPADUR* MULTI-STRENGTH* 4574₂

CURING AGENT 97360

Description:	HEMPADUR MULTI-STRENGTH 4574 is a self-priming, two-component, high-build, polyamide/adduct cured epoxy paint which cures to an abrasion resistant coating with good resistance to seawater. Applicable by standard heavy duty airless spray equipment. Minimum curing temperature -10°C/14°F.
Recommended use:	As a heavy duty coating for areas exposed to abrasion such as ramps, ship hulls and holds of bulk carriers. As a ballast tank coating for special purposes such as chemical carriers carrying hot cargoes. As a finishing coat where a cosmetic appearance is of less importance.
Service temperatures: Maximum:	Dry: 140°C/284°F In water (maximum temperature gradient 10°C/18°F): 50°C/140°F See REMARKS overleaf.
Approvals, certificates:	Approved for non-contamination of grain cargo at the Newcastle Occupational Health Agency, Great Britain.
Availability:	Subject to confirmation.

PHYSICAL CONSTANTS:

Colours/Shades nos:	Grey/12340	Red/50630
Finish:	Semi-gloss	Semi-gloss
Volume solids:	57%	57%
Theoretical spreading rate:	3.3 m ² /litre - 175 micron 131 sq.ft./US gallon - 7 mils	3.3 m ² /litre - 175 micron 131 sq.ft./US gallon - 7 mils
Flash point:	25°C/77°F	25°C/77°F
Specific gravity:	1.4 kg/litre - 11.7 lbs/US gallon	1.4 kg/litre - 11.7 lbs/US gallon
Surface dry:	15 (approx.) hours at 5°C/41°F	15 (approx.) hours at 5°C/41°F
Fully cured:	20 (approx.) days at 5°C/41°F	20 (approx.) days at 5°C/41°F
V.O.C.:	402 g/litre - 3.3 lbs/US gallon	401 g/litre - 3.3 lbs/US gallon

*The physical constants are subject to normal manufacturing tolerances.
Further reference is made to "Explanatory Notes" in the Hempel Book.*

APPLICATION DETAILS:

Mixing ratio for 4574 ₂ :	Base 45749 : Curing agent 97360 3 : 1 by volume
Application method:	Airless spray Brush (touch-up)
Thinner (max.vol.):	0845 (2%) 0845 (2%)
Pot life:	1 hour (15°C/50°F) 2 hours (15°C/50°F)
Nozzle orifice:	.019"
Nozzle pressure:	250 bar/3600 psi <i>(Airless spray data are indicative and subject to adjustment)</i>
Cleaning of tools:	HEMPEL'S TOOL CLEANER 9961 or THINNER 0845
Indicated film thickness, dry:	175 micron/7 mils
Indicated film thickness, wet:	300 micron/12 mils
Recoat interval, min:	See REMARKS overleaf
Recoat interval, max:	See REMARKS overleaf

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SURFACE

PREPARATION:

New steel, "heavy duty use": Abrasive blasting to min. Sa 2½. Grit surface profile, Rz minimum 100 micron - maximum 150 micron, corresponding to ISO Comparator Coarse (G). Oil and grease must be removed with suitable detergent, salts and other contaminants by (high pressure) fresh water hosing prior to blasting. After blasting, clean the surface carefully from abrasive and dust.

New steel, ballast tanks and similar areas: Abrasive blasting to Sa 2½. For temporary protection, if required, use a suitable shopprimer. Damage of shopprimer and contamination from storage and fabrication should be thoroughly cleaned prior to final painting. The best performance will be obtained by abrasive spot-blasting and abrasive sweep blasting of the intact shopprimer. For repair and touch-up use HEMPADUR MULTI-STRENGTH 4574.

Stainless steel: (Ballast tanks in chemical carriers) to be abrasive blasted to a uniform, sharp, dense profile, ISO Comparator Medium (G). Any salts, grease, oil, etc. to be removed before abrasive blasting is commenced.

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 abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

On old ship bottoms and similar pit corroded surfaces, excessive amounts of salt residues may call for dry abrasive blasting, high pressure fresh water hosing, drying, and finally, dry abrasive blasting again. Alternatively, hydro-jetting may be used provided the steel surface has already the surface profile as described above: New steel, "heavy duty use".

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, preferably above 20°C/68°F for proper application. Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation. Relative humidity max. 90%.

In confined spaces provide adequate ventilation during application and drying.

PRECEDING

COAT:

SUBSEQUENT

COAT:

REMARKS:

Weathering:

Service

temperatures:

A tendency to chalk in outdoor exposure does not detract from the protective properties.

Even though the service temperature is kept below the specified maximum, it should be noted that the higher the temperature, the more sensitive the paint will be to mechanical and/or chemical exposure. Combined thermal/mechanical and/or chemical exposure may therefore increase the risk of damage.

It is recommended to use heavy airless spray equipment with a pump transmission ratio of 60:1 (approximately), and a theoretical output of min. 12 litres per minute.

Recoating:

The following recoating intervals apply for well ventilated areas:

(175 micron/7 mils dry film thickness of HEMPADUR MULTI-STRENGTH 4574)

Surface temperatures	5°C/41°F		20°C/68°F	
	Minimum	Maximum	Minimum	Maximum
HEMPADUR	16 hours	60 days	6 hours	30 days
HEMPATHANE	16 hours	3 days	6 hours	1 day
HEMPATEX 4633	12 hours	16 hours	4 hours	8 hours
HEMPANYL TAR 1628	16 hours	24 hours	6 hours	12 hours

The long maximum recoating interval for HEMPADUR will be reduced if the coating is more than just scarcely exposed to direct sunlight before recoating.

If the interval is exceeded, roughening of surface is necessary to ensure intercoat adhesion.

Normally not to be diluted, but exceptionally 1-2% HEMPEL'S THINNER 0845 may be used.

Note:

SAFETY:

HEMPADUR 4574 is for professional use only.

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. Harmful or fatal if swallowed; immediately seek medical assistance if swallowed. Avoid inhalation of possible solvent vapours or paint mist, as well as paint contact with skin and eyes.

Apply only in well ventilated areas and ensure that adequate forced ventilation exists when applying paint in confined spaces or when the air is stagnant. Always take precautions against the risks of fire and explosions.

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