



HEMPATHANE ENAMEL 55100

BASE 55109 with CURING AGENT 95370

Description: HEMPETHANE ENAMEL 55100 is a two-component, high-gloss acrylic polyurethane enamel, cured with aliphatic isocyanate, with good gloss and colour retention.

Recommended use: As a glossy decorative finishing coat on a variety of substrates such as steel, aluminium, glassfibre, reinforced polyester, plywood, hardwood etc. in severely corrosive atmospheric environment.
Minimum temperature for curing is -10°C/14°F.

Service temperatures: Maximum, dry exposure only: 120°C/248°F (see REMARKS overleaf).

Availability: Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Colours/Shade nos:	White/10000*
Finish:	High-gloss
Volume solids, %:	52 ± 1
Theoretical spreading rate:	14.9 m ² /litre - 35 micron 596 sq.ft./US gallon - 1.4 mil
Flash point:	35°C/95°F
Specific Gravity:	1.3 kg/litre - 10.8 lbs/US gallon
Surface dry:	2½ (approx.) hrs at 20°C/68°F (ISO 1517)
Dry to touch:	4-5 hours at 20°C/68°F
Fully cured:	7 days at 20°C/68°F
V.O.C.:	440 g/litre - 3.7 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:

Mixing ratio for 55100:	Base 55109 : Curing agent 95370 7 : 1 by volume		
Application method:	Airless spray	Air spray	Brush
Thinner (max.vol.):	See REMARKS overleaf	See REMARKS overleaf	08080 (5%)
Pot life:	2 hours (20°C/68°F)		
Nozzle orifice:	.017"-.019"		
Nozzle pressure:	75-100 bar /1100 -1450 psi (Airless spray data are indicative and subject to adjustment)		
Cleaning of tools:	THINNER 08080 or 08510		
Indicated film thickness, dry:	35 micron/1.4 mil		
Indicated film thickness, wet:	75 micron/3 mils		
Recoat interval, min:	8 hours (20°C/68°F)		
Recoat interval, max:	See REMARKS overleaf		

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.



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APPLICATION AND CURING CONDITIONS:

The surface must be completely clean and dry at the time of application, and its temperature must be above the dew point to avoid condensation. Minimum temperature for curing is -10°C/14°F.

At the freezing point and below, be aware of the risk of ice on the surface which will hinder the adhesion. Light rain, high humidity and/or condensation during application and the following 16 hours (20°C/68°F) may adversely affect the film formation. The humidity of plywood/hardwood should not exceed 16% w/w.

In confined spaces provide adequate ventilation during application and drying.

PRECEDING COAT: HEMPADUR 45141/45143, HEMPADUR MASTIC 45880/45881 or according to specification.

SUBSEQUENT COAT: None.

REMARKS:

Colours:

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. To obtain full opacity, an extra coat may be necessary, especially for certain lead-free colours in eg red, orange, yellow and green.

Service temperatures:

At service temperatures above 100°C/212°F, slight discoloration may be expected.

Film thicknesses:

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 is 20-40 micron/0.8 -1.6 mils.

Thinning:

The type and amount of thinner depend on application conditions, application method, temperature, ventilation, and substrate. THINNER 0808 is recommended in general. THINNER 08510 may be used alternatively depending on local conditions.

Airless spray: 15-20% thinning is recommended. Under extreme conditions more than 25% may be necessary to obtain satisfactory film formation.

Conventional air spray: Dilute to a viscosity of 17-20 s/DIN 4 (approx 35% by volume). Use lowest possible air pressure and a small nozzle.

For both kinds of spray application the best result is obtained by applying a mist coat of HEMPATHANE ENAMEL 55100 at first, and then 2-15 minutes later apply to full film thickness giving a uniform film formation. Do not exaggerate the film thickness.

Recoating and drying/curing time:

Physical data versus temperatures (35 micron/1.4 mil dry film thickness - sufficient ventilation):						
Surface temperature		-10°C/14°F	0°C/32°F	10°C/50°F	20°C/68°F	30°C/86°F
Dry to touch, approx.		45 hours	20 hours	9 hours	5 hours	3 hours
Resist condensing humidity/light showers after:		(7 days)	3 days	32 hours	16 hours	12 hours
Fully cured, 70% RH		(2 months)	32 days	14 days	7 days	5 days
Recoating interval, recoating 55100 with 55100	Min	3 days	1½ day	16 hours	8 hours	6 hours
	Max*	(6 months)	(6 months)	(6 months)	3 months	2 months

*The maximum recoating intervals apply to surfaces exposed to very severe conditions of periodical immersion, heavy condensation, great variations in temperatures, chemical attack and/or abrasion during service life of the coating system. Under other conditions no maximum recoating interval. **A completely clean surface is anyhow mandatory to ensure intercoat adhesion, especially at long recoating intervals. Any dirt, oil, and grease has to be removed. e.g. with suitable detergent. Salts to be removed by fresh water hosing. To check an adequate quality of the surface cleaning a test patch is recommended before actual recoating.**

If the maximum recoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion. In the case of recoating with other paint materials maximum will be 1-3 days (20°C/68°F) depending on type.



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Notes: CURING AGENT 95370 is sensitive to moisture. Store in a dry place and keep the can tightly closed until use. Open curing agent cans with caution as overpressure might exist. Even small traces of water in the mixed paint will reduce the pot-life and result in film defects.

HEMPATHANE ENAMEL 55100 is for professional use only.

ISSUED BY: HEMPEL A/S - 5510010000C0006

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