Technical information

Hesse CREATIVE-METALLIC DB 46555-(colour tone)

Mixing ratio (by volume): 10 : 1 PU Hardener DR 4070

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Product description

CREATIVE-METALLIC colour lacquer can be used to create unique pieces for interior fittings and on furniture and doors. Produce the most beautiful metallic effects with coarse to fine metallics, from silver, copper and gold colour tones through to modern, bright metallics. The associated CREATIVE-METALLIC colour chart displays 112 different colour tones that depict the full diversity of this system. All of the lacquers in this range can of course also be mixed with one another for a virtually limitless variety of effects.

Areas of application

This fast-drying lacquer system has been developed especially for interior fittings and shop fitting. The coating of furniture and doors represents an additional benefit. The same lacquer can also be used for decorative glass coating on elements like glass doors, shower partitions and glass within furniture.

Area of application

- Glass
- Internal fit-out
- Kitchen and bathroom
- Furniture
- The fitting out of ship interiors
- Doors

Substrate material

- Dark, fine pored hardwood
- dark deciduous woods with coarse pores
- Exotic / tropical wood
- light deciduous woods with fine pores
- light deciduous woods with coarse pores
- Engineered veneer/fineline
- Conifers
- Teak
- Wenge
- Hardboard
- HDF
- OSB
- ABS
- Decorative film
- suitably pre-primed
- Priming foil
- Melamine foil
- Paper foil

Surface Preparation

Substrate sanding grits	150 - 320

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Application

Application	Spray nozzle size	Spray pressure	Atomizing pressure
2C line			
Airless	0,23 - 0,28 mm	100 - 150 bar	
Airless low pressure			
Airmix	0,23 - 0,28 mm	60 - 100 bar	2 - 2,5 bar
Compressed air spraying	1,8 - 2 mm	1,8 - 2 bar	
High-performance automatic spraying unit			
Automatic spray gun			
Spraying robot			

Times

Pot life	8 h / 20 °C
Drying	16 h / 20 °C
Follow-up coating within	8 h / 20 °C
Stackable after	16 h / 20 °C
Complete drying	7 d / 20 °C

Finishing

Finishing

Application of additional top coats can change the gloss level or final surface.

The following light-fast lacquers can be applied without lacquer sanding after the intermediate drying of CREATIVE-METALLIC for 4 - 6 h / 20 °C: DE 4259x(gloss level), DE 4877x(gloss level), DE 4503x(gloss level), DU 429-1, DU 45229, DU 46269-0005, DU 48999.

It is imperative to apply a transparent top coat within < 2 h / 20 °C to prevent corrosion spots when using colour tone ranges COPPER DB 46555-CU0x and GOLD DB 46555-GD0x and in the event of individual tinting with these colour tone ranges!

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Processing instructions

A single layer application of 80 - 120 g/m² in the spraying process is recommended for **CREATIVE-METALLIC DB 46555-(colour tone)**. Formation of the effect and colour tone is largely dependent on the working method, application quantity and substrate condition. DB 46555-(colour tone) should not be applied too wet to enable a uniform effect to be achieved. We therefore recommend the use of smaller nozzles (1.2 - 1.5 mm) when using a cup gun for application. The spray nozzle sizes specified under "Application" in this Technical Information are default values for Metallic lacquers. A trial coating should be performed as required!

Use of Thinners: For smaller surface areas we recommend our PU Thinner DV 4900, and DV 4994 for larger surface areas. The quantity to be added to the lacquer/hardener mixture is around 10 - 40 % depending on the colour tone, effect and component.

Use of alternative hardener: supplementary to hardening with PU Hardener DR 4070, it is also possible to use our PU Hardener DR 4071 in a mixing ratio (by volume) 10 : 1.

Gold and copper colour tones: it is best to use lower coating thicknesses (50 - 70 g/m²) to obtain ideal brilliance when working with colour tones in the GD and CU series. Fine sanding and polishing of the substrate is advisable. Parallel surfaces with the "Sanded-Metallic" effect can be achieved on coarsely sanded substrates (80 - 180 grit). Please refer to the technical information on our homepage.

Coating glass: coating glass cleaned using Cleaning thinner ZD 101 requires the use of our PU Hardener DR 4076-0001 in a mixing ratio (by volume) 5 : 1. The application quantity is 130 - 160 g/m². An application quantity of 80 - 120 g/m² is advisable when using gold and copper colour tones. The processing time for DB 46555-(colour tone) when hardened using PU Hardener DR 4076-0001 is 5 - 6 h / 20 °C. Coated panes of glass can be glued after storing for 7 d / 20 °C.

Coating on sheet steel or stainless metal: after careful degreasing using PU Thinner DV 4900 or DV 4994 DB, then 46555-(colour tone) in a mixing ratio (by volume) 5 : 1 with PU Hardener DR 4076-0001 can be used to coat sheet steel or stainless metal. Polishing of the steel sheet or metal surface additionally improves the adhesion of DB 46555-(colour tone). **The user should independently apply a test coat and finally approve it by means of a cross-cut test.** Please feel free to contact your relevant Hesse sales representative in case of need.

Particular instructions

DB 46555-(colour tone) can be recoated using a transparent PU lacquer to optimise its chemical and mechanical resistance and to create individual gloss levels. When doing this, please follow the instructions in the "Final treatment" section of this Technical information. Materials from the same range can be mixed with each other. Pre-priming is possible depending on the desired surface and substrate, e.g. using Isolating fillers DP 491-9343 / DP 4791-9343, DP 4755-9343 and DP 4788-9343. The colour tones portrayed in the colour fans may deviate from the actual coating result. Different application methods and substrates are instrumental in generating the effect. The colour tone can also evolve somewhat differently than depicted when using clear top coats and when coating behind glass. It is therefore advisable to conduct a trial coating and sampling. We recommend the use of a soft duster for normal dry buffing. Microfibre or leather cloths are suitable for damp cleaning. Moisten the cloth with water, wring it out and damp clean. Harsh household cleaners or abrasive substances are not suitable!

This product must only be combined with other approved and technically suitable products when used as a flame retardant coating material for seagoing vessels according to the latest version of SOLAS 74 Reg. II-2/3, II-2/5, II-2/6 and X/3, as amended, IMO Resolution MSC.36(63)-(1994 HSC-Code) 7, IMO Resolution MSC.97(73)-(2000 HSC-Code) 7, IMO MSC/Circ. 1120. The maximum application amount in wet film when using this product as a flame retardant coating material for seagoing vessels is 120 g/m². This does not apply to application on glass and metal!

"A risk assessment was undertaken according to Directive 2014/90/EU, Annex II, Section 3. This coating does not pose a physical risk to health nor a risk to the environment when cured and dried."

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Technical data

Flow time (+/- 15%)	40 s / DIN4
Yield per coat	9 - 13 m²/l The spreading rate is heavily dependent on the type of application. The specifications relate to a liter of ready-for-use product, if necessary including hardener and thinner.
Proportion of renewable raw materi-	0.002 %
Non-volatile proportion	16.5 - 41.7 %
VOC FR	C
conditions of transport	frost-free - up to max. 35 °C
Shelf life in weeks	26
Storage temperature	16 - 40 °C
Number of coats (max)	1
Amount per layer (minimum)	80 g/m²
Amount per layer (max)	120 g/m²
Total application volume	120 g/m²
Mixing ratio (by volume)	10 : 1 PU Hardener DR 4070
Mixing information (gravimetric)	100 : 10 PU Hardener DR 4070

Particular properties / testing standards

Sign	Product standard / basis
	Formulation is free of: wood preservatives, toxic heavy metals, phthalate plasticizers, formaldehyde, CMR substances in Categories 1A + 1B and volatile aromatic and halogenated organic compounds.
	Saliva and sweat resistance according to DIN 53160 Parts 1 and 2: no discolouration (Level 5)
	PVC-resistant
	Quality Assurance System Certificate (Module D); Directive 2014/90/EU (Marine Equipment Directive)

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Ordering information

Order number	Colour tone	Gloss level 60° (Gloss +/-5)	Gloss level
DB 46555-MM01	SILVER MEDIUM		silk matt
DB 46555-MF01	SILVER FINE		silk matt
DB 46555-MC01	SILVER COARSE		silk matt
DB 46555-CU01	COPPER		silk matt
DB 46555-GD01	GOLD		silk matt

Accessories

	Order number	Product description
hardeners	DR 4070	PU Hardener
Thinners	DV 4900	PU Thinner
	DV 4994	PU Thinner
Retarder	DV 4909	PU Retarder
Equipment cleaner	RV 1	Cleaning thinner
Additives and care products	ZD 101	Cleaning thinner

General instructions on workmanship

PU lacquers should not be applied or dried at material and room temperatures of less than 18 °C and 40 % RH, ideal values: 20 - 25 °C, 50 - 65 % RH. Deviations will result in drying or curing faults. To avoid adhesion problems, please sand PU lacquered surfaces before applying fresh lacquer and apply lacquer to these sanded surfaces as soon as possible. Old lacquer/hardener mixtures will affect the surface quality (adhesion/resistance). If stored correctly (at least 20 °C room temperature), complete hardening of the coating is achieved after a week. Please apply a test coat under real conditions!

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