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 c**oarse 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.

>Surface Preparation

Surface preparation	Prior to application, the surface must be sanded, clean and free of grease. Woods or wood materials with suitable base coats can be used as substrates. Please conduct a trial coating to ensure proper adhesion when directly coating wood materials with cleaned or sanded melamine and laminates or when used on plastics. Surfaces must be cleaned in advance using ZD 101 or HV 6904 when coating glass.
Substrate sanding grits from-to	150 - 320

>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!

>Times

Usage time	8 h / 20 °C
Working Temperature Range	16 - 25 °C
Pot life	8 h / 20 °C
Drying	16 h / 20 °C
Subsequent coating within	8 h / 20 °C
Stackable after	> 16 h / 20 °C
Complete drying	7 d / 20 °C
Notes on drying	Forced drying is possible at 50 °C.

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>Application

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

>Processing instructions

For CREATIV-METALLIC DB 46555-(colour tone) we recommend a single layer application of 80 - 120 g/m² in the spraying process. Formation of the effect and colour tone is largely dependent on the working method, the application quantity and the substrate condition. Achieving a uniform effect formation requires that DB 46555-(colour tone) should not be applied too thickly. It is therefore advisable to use smaller nozzles (1.2 - 1.5 mm) when for instance using a cup gun for application. The spray nozzle sizes specified under “Application” in this Technical information are standard values for metallic lacquers. Please conduct a trial coating as necessary!
Use of thinners: we recommend DV 490 / DV 4900 for smaller surfaces and DV 494 / DV 4994 for larger surfaces. The amount to be added to the lacquer/hardener mixture is around 10 - 40 % depending on colour tone, effect and component.
Use of alternative hardeners: in addition to hardening with DR 4070, our PU Hardener DR 4071 can also be used at a mixing ratio (by volume) 10 : 1.
Gold and copper colour tones: colour tones in the GD and CU ranges require working with lower layer thicknesses (50 - 70 g/m²) to achieve ideal brilliance. Fine sanding of the substrate is recommended. Parallel surfaces can be achieved on coarser sanded substrates (80 - 180 grit) by using the “SANDED METALLIC” effect. Please follow the Technical information on our website in this regard.
Coating glass: the coating of cleaned glass requires Hardener DR 4076-0001 to be used at a mixing ratio (by volume) 5 : 1. The application quantity should be 130 - 160 g/m². An application quantity of 80 - 120 g/m² is advisable for gold and copper colour tones. The processing time for DB 46555-(colour tone) when hardened using DR 4076-0001 is 5 - 6 h / 20 °C. Coated panes of glass can be bonded after storage for 7 d / 20 °C.
Coating sheet steel or stainless metal: sheet steel or stainless metal can be coated using DB 46555-(colour tone) in a mixing ratio (by volume) 5 : 1 with DR 4076-0001 after thorough degreasing using DV 4900 or DV 4994. Sanding the steel sheet or metal surface additionally improves the adhesion of DB 46555-(colour tone). **A trial coating should be independently conducted by the user and finally approved by means of a cross cutting test.** Please contact your designated Hesse sales representative if necessary.

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>Technical data

Proportion of renewable raw materials %	0 - 0.272717719956
Flow time (+/- 15 %)	40 s / DIN 53211 - 4 mm
Appearance	opaque
Density series kg/l	0.941 - 1.12
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.
Form of delivery	fluid
Non-volatile content series %	0 - 41.7
VOC EU %	83 %
VOC FR	C
Working Temperature Range	16 - 25 °C
Storage temperature	10 - 30°C
Shelf life in weeks	52
Working viscosity	18 s / DIN 53211 4 mm
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 ratio (gravimetric)	100 : 10 PU Hardener DR 4070

>Ordering information

Order number	Colour tone	Gloss level 60° (Gloss)	Gloss level	Container Size
DB 46555-CU01	COPPER	24 - 29	silk matt	5 l, 25 l
DB 46555-GD01	GOLD	24 - 29	silk matt	5 l, 25 l
DB 46555-MC01	SILVER COARSE	24 - 29	silk matt	5 l, 25 l
DB 46555-MF01	SILVER FINE	24 - 29	silk matt	5 l, 25 l
DB 46555-MM01	SILVER MEDIUM	24 - 29	silk matt	5 l, 25 l

>Hardeners

Order number	Product description	Container Size
DR 4070	PU Hardener	0.1 l, 0.5 l, 1 l, 2.5 l, 5 l, 15 l

>Thinners

Order number	Product description	Container Size
DV 490	PU Thinner	1 l, 5 l, 15 l, 25 l
DV 4900	PU Thinner	1 l, 5 l, 15 l, 25 l
DV 494	PU Thinner	1 l, 5 l, 15 l, 25 l
DV 4994	PU Thinner	1 l, 5 l, 15 l, 25 l

>Retarder

Order number	Product description	Container Size
DV 4909	PU Retarder	1 l, 5 l, 25 l

>Equipment cleaner

Order number	Product description	Container Size
RV 1	Cleaning thinner	5 l, 15 l, 25 l

>Supplementary products

Order number	Product description	Container Size
ZD 101	Cleaning thinner	0.25 l, 1 l, 5 l, 15 l, 25 l
DR 4076-0001	PU Hardener	0.2 l, 1 l, 2.5 l

>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 74/88 Reg. II-2/3, II-2/5 and II-2/6, IMO Resolution MSC.36(63)-(1994 HSC-Code) 7 and IMO Resolution MSC.97(73)-(2000 HSC-Code) 7. 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.”

>General information

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!

>Particular properties and/or testing standards

Test standard / basis	Testing laboratory	Mark	Report	No.
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.	HESSE	Hesse-QS geprüft		
Saliva and sweat resistance according to DIN 53160 Parts 1 and 2: no discolouration (Level 5)	HESSE	Hesse-QS geprüft		
PVC-resistant	HESSE	Hesse-QS geprüft		

>Particular properties and/or testing standards

Test standard / basis	Testing laboratory	Mark	Report	No.
EC type examination certificate (module B); coating agent for seagoing vessels according to IMO Resolution MSC.307(88)-(FTP-Code 2010).	Trade association transport and traffic; Ship Safety Division, Hamburg		Approval No. U.S. Coast Guard Approval No.	116573-00 164.112/ EC0736/ 116573-00