Technical information

Hesse PU Acryl-brillant lacquer DU 45229

Mixing ratio (by volume): 2 : 1 PUR Hardener DR 4005

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>Product description

DU 45229 is ideally suited for clear and high gloss **finishing of colour lacquer surfaces**. This high gloss lacquer is **100 % light fast** and can be quickly polished or buffed using customary machines. It can also be **used on natural and bleached woods** with peroxide-resistant PU base coats.

>Areas of application

DU 45229 can be used for shopfitting and on all interior fixtures and fittings, including in kitchens and bathrooms as well as for coatings in ship interiors.

>Surface Preparation

Surface preparation	On suitable Hesse PU coloured lacquers and primers. Prior to application, the surface must be sanded, clean and free of grease.
Substrate sanding grits from-to	400 - 800

>Finishing

Finishing	After sufficient drying time and intermediate sanding, another coat of the same.

>Times

Usage time	2 - 3 h / 20 °C
Pot life	4 h / 20 °C
Drying	21 h / 20 °C
Stackable after	> 48 h / 20 °C
Complete drying	7 d / 20 °C

>Application

Application	Nozzle size in mm	Spray pressure in bar	Atomising pressure in bar
Spraying			
2C line			
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

When being used as a flame-retardant coating agent for seagoing vessels, the maximum total application amount is 120 g/m².
Hesse PU Acrylate brilliant lacquer DU 45229 can be polished to a high gloss after 48 h / 20 °C, or after 16 h / 30 - 35 °C. **Should a high gloss surface with particular scratch resistance be required, we recommend the use of our transparent high gloss ADAMANT DU 48999 lacquer. Please note the separate technical information on this product.**

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Flow time (+/- 15 %)	30 s / DIN EN ISO 2431 - 4 mm
Appearance	colourless
Density series kg/l	0.978
Yield per coat	7 - 12 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 %	39
VOC EU %	61 %
VOC FR	C
Storage temperature	16 - 40 °C
Shelf life in weeks	52
Working temperature	22 °C
Working viscosity	15 s in 4mm / 20 °C
Number of coats (max)	3
Amount per layer (minimum)	80 g/m²
Amount per layer (max)	150 g/m²
Total application volume	300 g/m²
Mixing ratio (by volume)	2 : 1 PUR Hardener DR 4005
Mixing ratio (gravimetric)	100 : 50 PUR Hardener DR 4005

>Ordering information

Order number	Gloss level 60° (Gloss)	Gloss level	Container Size
DU 45229	≥ 90	high gloss	5 l, 25 l

>Hardeners

Order number	Product description	Container Size
DR 4005	PUR Hardener	2.5 l, 12.5 l

>Thinners

Order number	Product description	Container Size
DV 4935	PU Thinner	5 l, 15 l, 25 l

>Retarder

Order number	Product description	Container Size
DV 4981	PU Thinner	1 l, 5 l, 25 l

>Equipment cleaner

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

>Cleaning agent and care product

Order number	Product description	Container Size
ZD 5200	Furniture polish	1 l, 5 l, 15 l

>Particular instructions

When used as a low-flammable coating for seagoing vessels, this product is only compatible with other technically suitable and approved products. Pre-priming is possible, depending on the surface requirements and the substrate, using the likes of basecoats DG 417, 4717-0005 and UNA-COLOR DB 4524x(gloss level)-(colour tone). Combination with PU Basecoats DG 417 and DG 4717-0005 is recommended on bleached surfaces.
"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."

>Sample process

Sideboard in high gloss stone grey, unpolished
Substrate material: thermo-foiled MDF
Foil sanding: 320 - 400 grit
Edge and profile sanding: 150 - 180 grit (dust removal)
Basecoat: 1 x 150 - 200 g/m² PU Isolating filler DP 491-9343, mixing ratio (by volume) 4 : 1 with PU Hardener DR 405 and the addition of 10 - 15 % Thinner DV 4935 in relation to the lacquer/hardener mixture
Drying: at least 5 h / 20 °C, preferably 16 h / 20 °C
Filler sanding: 320 - 400 grit (dust removal)
Basecoat: 1 x 150 - 200 g/m² PU Isolating filler DP 491-9343, mixing ratio (by volume) 4 : 1 with PU Hardener DR 405 and the addition of 10 - 15 % Thinner DV 4935 in relation to the lacquer/hardener mixture
Drying: at least 5 h / 20 °C, preferably 16 h / 20 °C
Filler sanding: 320 - 400 grit (dust removal)
Colour coating: 1 x 120 - 150 g/m² UNA-COLOR DB 45245-7030, mixing ratio (by volume) 10 : 1 with PU Hardener DR 4070 and the addition of 10 - 20 % Thinner DV 490 in relation to the lacquer/hardener mixture
Drying: at least 5 h / 20 °C, preferably 16 h / 20 °C
Colour lacquer sanding: smoothing using 400 / 600 grit is required after an intermediate drying time of > 5 h / 20 °C!
High gloss coating: 2 x 90 - 120 g/m² PU Acrylic Brilliant lacquer DU 45229 with intermediate drying of 30 - 60 min / 20 °C, mixing ratio (by volume) 2 : 1 with PU Hardener DR 4005 and the addition of 20 - 40 % Thinner DV 4935 in relation to the lacquer/hardener mixture
Drying: > 48 h / 20 °C

>General information

PU lacquers should not be applied and dried at material and room-temperatures below 18 °C and 40 % RH. Ideal values are: 20 - 25 °C, 50 - 65 % RH. Deviations will result in drying or hardening errors. In order to avoid adhesion problems, please sand the PU lacquered surfaces before applying fresh lacquer and apply lacquer to the sanded surfaces as soon as possible. Old lacquer and hardener mixtures affect the surface quality (adhesion/resistance). Freshly bleached substrates must undergo intermediate drying for at least 48 h at 20 °C before coating with suitable PU lacquers. If stored correctly (at least 20 °C room temperature), the final hardness 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.
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.	116.440-01 164.112/ ECO736/116.440-01
PVC-resistant	HESSE	Hesse-QS geprüft		

>Particular properties and/or testing standards

Test standard / basis	Testing laboratory	Mark	Report	No.
Flame retardant to B1 according to DIN 4102; on suitable substrates.	MPA-Stuttgart	Ü	Test certificate no. certificate of compliance	P-BWU03-I-16.5.433 ÜZ-BWU03-I 16.2.876
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		
DIN 68861-Part 1B (Furniture surfaces; Behaviour under chemical demands)	HESSE	Hesse-QS geprüft		
Saliva and sweat resistance according to DIN 53160 Parts 1 and 2: no discolouration (Level 5)	HESSE	Hesse-QS geprüft		