

PUR-LACQUERS, COLOURLESS



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PUR-lacquers are two-component systems, consisting of one lacquer- and one hardener-component. This means, that after exact addition of a prescribed hardener amount, a specific pot life (life of the mixture) and application time must be considered. The dried and hardened lacquer film is almost completely solvent-resistant and resistant to many chemical and mechanical influences. For this reason, PUR-lacquers are ideal for the coating of extremely used elements like kitchen-, bathroom- and office furniture, tables and chairs.

Hints for the processing of PUR materials:

PUR-lacquers should not be applied and dried at material- and room temperatures below 18°C. In order to avoid adhesion problems PUR-coated surfaces should be directly sanded before application; sanded surfaces should be finished immediately. Ready-mixed material from the day before can only be used, if added 10-20% into a fresh lacquer-hardener mixture. Old lacquer-hardener mixtures will affect the quality of the surface (adhesion/resistance). The final hardness of the coating is reached after one week at proper storage (at least 20°C). Bleached wood must dry for at least 48 h at 20°C before further application. Please make a test coating under practical conditions.

Hesse PUR Base coat DG 526

Fast drying, machine-sandable two-component PUR-Alkyd Base coat

Fields of application

For open-cell coatings under Hesse PUR Multicoat lacquers and -top coats in the complete field of interior completion in the living sector.

Processing example

Cupboard unit, beech, natural, mat

- Wood sanding with grain 120-180
- 1-2 x priming with 100-130 g/m² with Hesse PUR Base coat DG 526
- Mixture 10:1 with Hesse PUR Hardener DR 470
- Intermediate drying at least for 2 h at 20°C
- Intermediate sanding with grain 280-320
- 1 x finishing with 100-150 g/m² Hesse PUR Multicoat lacquer DE 54.
- Mixture 10:1 with Hesse PUR Hardener DR 470
- Drying for at least 12 hours at 20°C before packing

Technical data

Mixing ratio: **10:1 with hardener DR 470**

Delivery viscosity:

39-42 sec. /DIN 4 mm/20°C

Processing time: 1 work day at 20°C

Application

Spray application (maybe addition of thinner is required)

with cup gun:

Nozzle size:	1,8-2,0 mm
Spray pressure:	2,5-3,5 bar
Airless:	
Nozzle size:	0,23-0,28 mm
Spray pressure:	100-150 bar
Airmix:	
Nozzle size:	0,23-0,28 mm
Spray pressure:	60-100 bar
Atomizing pressure:	1,5-2,5 bar

Order information

Order-no.:	DG 526
Packaging sizes:	5/25 litres
Order-no. hardener:	DR 470
Efficiency per litre:	6-8 m ² per work step including overspray
Order-no. thinner:	DV 490, DV 494

Hesse PUR-Base coat DG 434

Special base coat for the interior completion of ships. Fast drying, good sandable and equipped with light protector. Certified according to IMO for seagoing vessels.

Fields of application

For all current kinds of wood in the field of interior completion of ships. Also applicable on bleached surfaces.

Processing example

Built-in system, natural maple, high gloss

- Wood sanding with grain 120-180
- 2x base coating with 120-150 g/m² Hesse PUR Base coat DG 434
- Mixture 5:1 with hardener DR 470
- Intermediate drying for at least 4 h at 20°C, 2nd coat at least 16 h
- Sanding with grain 280 to 320
- Last sanding graduated from grain 320 to 400
- 2x top coating with 100-120 g/m² Hesse PUR Brilliant lacquer DU 489
- Mixture 3:1 with hardener DR 470
- following processing, see DU 489 on page 43

Technical data

Mixing ratio: **5:1 with hardener DR 470**

Working viscosity:

38-42 sec./DIN 4 mm/20°C

Processing time: 1 work day at 20°C

Application

Spray application

(maybe addition of thinner is required)

Air spraying (cup):

Nozzle size:	1,8-2,0 mm
Spray pressure:	2,5-3,5 bar
Airless:	
Nozzle size:	0,23-0,28 mm
Spray pressure:	100-150 bar
Airmix:	
Nozzle size:	0,23-0,28 mm
Spray pressure:	60-100 bar
Atomizing pressure:	2,0-2,5 bar

Order information

Order-no.:	DG 434
Packaging sizes:	5/25 litres
Hardener:	DR 470
Efficiency per litre:	5-6 m ² per work step including overspray
Thinner:	DV 490

After finish with Hesse PUR Multicoat lacquers DE 55. or DE 56., following test standards are fulfilled:



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from formaldehyde
- Free from wood preservatives
- PVC-resistant

Hesse SunCape Base coat DG 416

Good filling, lightfast two-component acrylic resin base coat with very good footing under high gloss systems. Especially applicable for light wood. Product can be used on bleached wood. (see also „Important advices“)



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- Free from formaldehyde

- Free from wood preservatives

- After final treatment with Hesse UNA PUR, following test standards are fulfilled:

- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)

- DIN EN 71, part 3 (safety of toys)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- PVC-resistant

ChemVOC
FarbV

Decopaint

- Fulfills the demands of the Decopaint direction (solvent-containing paint - and Lacquers decree ChemVOCFarbV dd. 23.12.2004)

Fields of application

For filling or closed-pore lacquer coatings under Hesse PUR-Multicoat-, top coat- and brilliant lacquers and under many Hesse Hydro lacquers in the complete field of interior fittings, as well as kitchens and bathrooms.

Processing example

Sideboard, natural bird's eye maple, closed-pore, silky mat

- Wood sanding with grain 120 - 180
- 2 - 3 x base coating with 130 - 180 g/m²
Hesse SunCape PUR Base coat DG 416
Mixture 2 : 1 with PUR-Hardener DR 470
- Dilute first base coat with 10 % PUR-Thinner DV 499
- Intermediate drying at least for 16 h per coat at 20°C
- Intermediate sanding of the lacquer with grain 220 - 280
- Last sanding with grain 320-400
- 1 x finishing with 100 - 150 g/m²
Hesse PUR Multicoat lacquer DE 564
Mixture 10 : 1 with PUR-Hardener DR 470
- dust dry after 15 - 20 min.
- packable after drying of at least 16 h at 20°C

Technical data

Mixing ratio: **2:1 with hardener DR 470**

Working viscosity:

19-23 sec./DIN 4 mm/20°C

Processing time: 1 work day at 20°C

Application

Spraying

Working viscosity 19-23 sec/DIN 4mm, 20°C

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure : 60 - 100 bar

Atomizing pressure: 1- 2 bar

Important advices

Applicable top coats:

Many Hesse PUR-Multicoat- and -top coats like e.g. Hesse PUR Multicoat lacquers DE 55.(gloss level), DE 56.(gloss level), top coat DU 59.(gloss level), PUR-Acrylic Brilliant lacquer DU 429; as well as Hydro lacquers e.g. Hesse Hydro PUR Brilliant lacquer HDE 599, Hydro PUR Multicoat lacquer HDE 54.(gloss level). Intermediate drying time after bleaching at least 72h.

Order information

Order-no.: **DG 416**

Packaging sizes: 5/25 litres

Order-No. hardener: **DR 470**

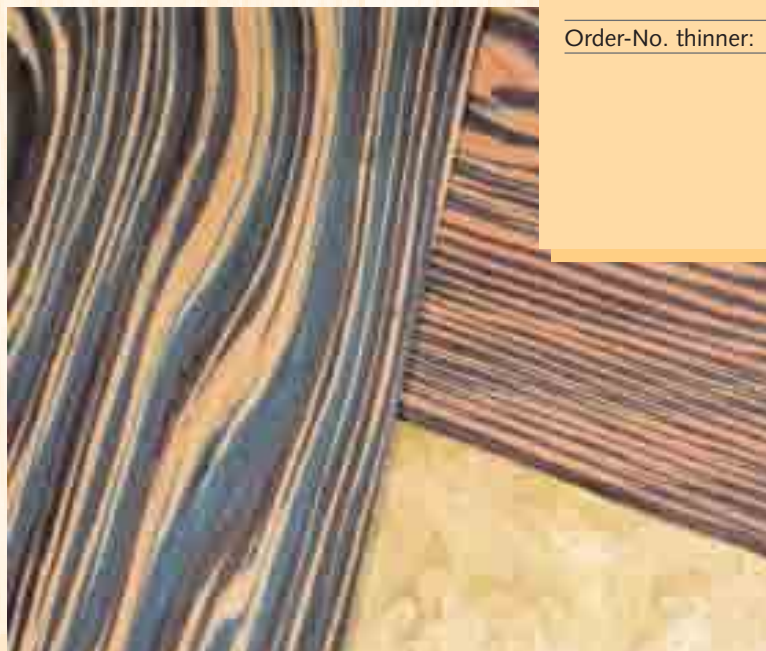
Packaging sizes hardener: 0,1/0,5/1/2,5/

5/10 litres

Economy per litre: 5-6 m² each step

including overspray

Order-No. thinner: **DV 499**



Hesse PUR Base coat DG 468-1

Two-component PUR-Base coat based on polyester resin, extremely elastic, especially transparent and good filling with excellent body; IMO-certified

Fields of application

For closed-pore coatings; under Hesse PUR Multicoat- and top coatings or high gloss Hesse Brilliant-Lacquer in the complete sector of interior completion, as well as kitchen and bathroom.

Processing example

Interior completion of ships, walnut, high gloss

- Wood sanding with grain 120 - 150
- 1 - 9 x base coating with 100 - 200 g/m² Hesse PUR-Base coat DG 468-1
Mixture 2 : 1 with PUR-Hardener DR 435
Maximum total application quantity of the wet film: 1200 g/m²; if used as flame retardant coating for seagoing ships, max. total quantity is: 150 g/m²
- 2 - 3 lacquer applications with short intermediate drying possible without sanding – Then intermediate drying of at least 16h is required.
- Storage drying of the base coat to avoid collapsing at least 3 days
- Sanding of the last base coat with grain 400 - 800
Pre-treatment of the substrate: graduated wood sanding with grain 120-180, cleaning from dust.
- Intermediate lacquer sanding with grain 220-400, if finished with high gloss lacquer, sand at least with grain 400-800

Technical data

Mixing ratio: **2 : 1 with Hesse PUR-Hardener DR 435**
Working viscosity: 17 - 21 sec / DIN 4 mm / 20°C
Processing time: 2 - 3 hours at 20°C
Pot life: 3 - 4 hours at 20°C
Sandable after: 5-6 h at 20°C, better after 16 h

Application

Spraying (10-20% addition of thinner especially recommended for the 1. base coat)

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure : 60 - 100 bar

Atomizing pressure: 1 - 2 bar

Important advices

As efficient, fast drying base coat under high gloss, alternatively the Hesse PUR Base coat DG 468-2 can be used. Due to the very short pot life of 1 - 1,5 hours, we recommend application with a 2C-spray gun.

Order information

Order-No.:	DG 468-1
Packaging sizes:	5/25 litres
Hardener:	DR 435
Packaging sizes hardener:	2,5/10 litres
Efficiency per litre:	5 - 6 m ² each step including overspray
Thinner:	DV 490, DV 494
Retarder:	DV 499 , addition max. 5 %
Cleaning thinner:	NV 395

Hesse PUR Base coat DG 468-2

Highly-filling two-component PUR-Base coat based on alkyd resin, extremely elastic, especially transparent with excellent stand under high gloss; IMO-certified

Fields of application

For filling to closed-pore coatings; under Hesse PUR Multicoat- and top coatings or high gloss Hesse Brilliant-Lacquer in the complete sector of interior completion, as well as kitchen and bathroom.

Processing example

Interior completion, mahogany, stained, high gloss

- Wood sanding with grain 120 - 150
- 1 x staining with wiping with Hesse Precious wood stain BE 15-20400
- Drying for 2-3 hours
- 2 x base coating with 100 - 200 g/m² Hesse PUR Insulating Primer DG 572-1
Mixture 2 : 1 with PUR-Hardener DR 440, if required, dilute with DV 494
- Drying for 2-5 hours
- Sanding with grain 320-400
- 3 x 150 - 200 g/m² wet-on-wet application (30 min intermediate drying) with Hesse PUR-Base coat DG 468-2, mixture 1 : 1 with hardener DR 439, 10 - 30 % thinner DV 494 (winter) or DV 4981 (summer)
- Drying 16 - 20 hours / sanding with grain 320
- 3 x 150 - 200 g/m² wet-on-wet application (30 min intermediate drying) with Hesse PUR-Base coat DG 468-2, mixture 1 : 1 with hardener DR 439, 10 - 30 % thinner DV 494 (winter) or DV 4981 (summer)

Technical data

Mixing ratio: **1 : 1 with Hesse PUR-Hardener DR 439**
Working viscosity: 17 - 21 sec / DIN 4 mm / 20°C
Processing time: 2 - 3 hours at 20°C
Pot life: 1 - 1,5 hours at 20°C
Sandable after: 5-6 h at 20°C, better over night

Application

Spraying (10-20% addition of thinner especially recommended for the 1. base coat)

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure : 60 - 100 bar

Atomizing pressure: 1 - 2 bar

Important advices

Due to the very short pot life of 1 - 1,5 hours, we recommend application with a 2C-spray gun.

Order information

Order-No.:	DG 468-2
Packaging sizes:	5/25 litres
Hardener:	DR 439
Packaging sizes hardener:	2,5/10 litres
Economy per litre:	5 - 6 m ² each step including overspray
Thinner:	DV 494 (winter), DV 4981 (summer)
Retarder:	DV 4981
Cleaning thinner:	NV 395



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- Free from wood preservatives

- Free from formaldehyde

- After finish with Hesse PUR Multicoat lacquer, following test standards are fulfilled:

- QS-tested

- DIN 68861 - part 1B (Furniture surfaces; behaviour at chemical strain)

- DIN EN 71, part 3 (safety of toys)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- PVC-resistant

Professional association Sea



- EC-General appraisal certificate, approval no. DG 468-1 = 116.244
DG 468-2 = 116.276

US Coast Guard
Approval no.:
DG 468-1 = 164.112/
EC0736/116.244
DG 468-2 = 164.112/
EC0736/116.276
according to IMO-Res.
MSC. 61(67)(FTP-Code),
annex 1, part 5

Hesse PUR Multicoat lacquer DE 55. (degree of gloss)



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories



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- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN 68861 – part 2D and 4E (mechanical resistance)
- DIN 68861 – part 7C and 8C (dry and damp heat)
- PVC-resistance according to Rosenheim direction Test report no.: 264001
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from wood preservatives



Fraunhofer Wilhelm-Klauditz-Institut Holzforschung

- Free from formaldehyde (test report no.: B239A/00)



- DIN 4102-B1, test certificate no.: P-BWU03-I-16.5.75 General appraisal certificate for flame retardance

- EDIN 5510-2; 2000-05-26; section 5.3, table 9, test report no.: 10-990 095 000a Fire protection for rail vehicles

Light fast, resistant two-component-PUR-lacquer based on acrylic resin with light protector. Multicoat lacquer for base coating and top coating. Flame retardant according to DIN 4102 B1 tested and supervised. Product can be applied on bleached wood.

Fields of application

Surfaces with highest resistance to chemical and mechanical strain – therefore ideal for strongly worn surfaces like e.g. in the fields of restaurants, kitchens and bathrooms or for tables etc.

Applicable for Wenge, if bleached and stained.

Processing example

Pharmacy fittings, natural rosewood, silky gloss, open-pore

- Wood sanding with grain 150 - 180
- 1x base coating with 100 - 150 g/m² Hesse PUR Multicoat lacquer DE 557 Mixture 10 : 1 with PUR-Hardener DR 470
- Drying at least for 2 h at 20°C
- Lacquer sanding with grain 280 - 320
- Finishing with 100 -150 g/m² Hesse PUR Multicoat lacquer DE 557 Mixture 10 : 1 with PUR-Hardener DR 470
- Dust dry after 15 - 20 min.
- Packable after drying for at least 16 h at 20 °C

Technical data

Mixing ratio: **10:1 with Hardener DR 470**

Working viscosity:

23-25 sec/DIN 4mm/20 °C

Processing time: 1 work day

Pot life: 3 work days

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airless:

Nozzle size: 0,23-0,28 mm

Spray pressure: 100-150 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 2,0-2,5 bar

Curtain coating: applicable

Important advices

For special strain and on critical carriers, the material can be mixed 5 : 1 with DR 470.

Applicable as top coat on Hesse PUR Colour lacquer DB 555-colour tone; produces ring resistance. Do not use DE 550 (dull mat) as multicoat lacquer, but only as one-time top coat!

For objects/ furniture, which shall be equipped with antibacterial surfaces, e.g. in hospitals, medical practices, bakeries, restaurants, in the fields of kitchens- and bathrooms or for reception desks with large attendance etc. our Hesse PUR Multicoat lacquer, anti-bacterial with anti-microbial activity is available. This product is tested according to JIS Z 2801- 2000 in various gloss levels:

dull mat	DEM 550-AB
mat	DEM 552-AB
silky mat	DEM 554-AB
silky gloss	DEM 557-AB
glossy	DEM 559-AB

Order information

Order-No.:

dull mat **DE 550**

mat **DE 552**

silky mat **DE 554**

silky gloss **DE 557**

glossy **DE 559**

Packaging sizes: 1/5/10/25 litres

Hardener: **DR 470**

Packaging sizes hardener: 0,1/0,5/1/2,5/5/10

Economy per litre: 5-7 m² each step including overspray

Thinner: **DV 490**

Hesse PUR Multicoat lacquer DE 56. (degree of gloss)

Strong-body, lightfast, machine-sandable two-component-PUR-Lacquer based on acrylic resin with light protector. Multicoat lacquer for base coating and top coating with good stability at vertical surfaces. Free from phthalate softeners, therefore also applicable for the coating of children's toys and baby accessories. Flame retardant according to DIN 4102 tested and supervised; IMO certified (flame-retardant coating material for sea-going vessels). Product can be applied on bleached wood.

Fields of application

Coatings in the field of interior completion with highest demands to filling and elegance. Toxicologically tested surface (DE 562, DE 564), therefore also applicable for the coating of e.g. hospital beds. Maximum application quantity of the wet film, if used as flame-retardant coating material for seagoing ships: 2 x 120 g/m²

Processing example

Interior completion restaurant, DIN 4102 B1, natural beech, silky mat

- Wood sanding with grain 120 - 180
- 1 x base coating with 100 - 150 g/m²
Hesse PUR Multicoat lacquer DE 564
Mixture 10 : 1 with PUR-Hardener DR 470
- Drying at least for 2 h at 20°C better 16 h
- Lacquer sanding with grain 280 - 320
- 1 x finishing with 100 - 150 g/m²
Hesse PUR Multicoat lacquer DE 564
Mixture 10 : 1 with PUR-Hardener DR 470
- Dust dry after 15 - 20 min.
- Packable after drying for at least 16 h at 20°C

Technical data

Mixing ratio: **10:1 with Hardener DR 470**

Working viscosity:

22-25 sec/DIN 4 mm/20 °C

Processing time: 1 work day

Pot life: 2 work days

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airless:

Nozzle size: 0,23-0,28 mm

Spray pressure: 100-150 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 2,0-2,5 bar

Important advices

Use gloss level dull mat only as top coat.

Applicable for ring-resistant finish of Hesse PUR Colour lacquer DB 555-colour tone.

For especially worn surfaces and on critical carriers, the product can be mixed 5:1 with hardener DR 470.

If used as flame retardant coating material for seagoing vessels corresponding to SOLAS 74/88 ch. II-2 this product can only be combined with other approved and technically applicable products.

Order information

Order-No.:

dull mat **DE 560**

mat **DE 562**

silky mat **DE 564**

silky gloss **DE 567**

Packaging sizes: 5/25 litres

Hardener: **DR 470**

Packaging sizes hardener: 0,1/0,5/1/2,5/

5/10 litres

Efficiency per litre: 5-7 m² each step
including overspray

Order-No. Thinner: **DV 490**



DIN 68861 – part 1B
(Furniture surfaces; behaviour at chemical strain)

DIN EN 71, part 3 (safety of toys)

DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation):
no discoloration (level 5)

Free from formaldehyde

Free from wood preservatives

PVC-resistant

- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories



- DIN 4102-B1, test certificate no.: P-BWU03-I-16.5.143
ÜZ-BW=03-I-16.2.430 on hardly combustible wooden chipboards – also veneered

- EDIN 5510-2; 2000-05-26; section 5.3, table 9, test report no.: 10-990 095 000a
Fire protection for rail vehicles

Professional association Sea:



- EC-General appraisal certificate, approval no. 116.217 and US Coast Guard Approval no.: 164.112/EC0736/116.217 according to IMO-Res. MSC. 61(67)(FTP-Code), annex 1, part 5



- Toxicologically tested surface (DE 562, DE 564)



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from wood preservatives
- Free from formaldehyde
- PVC-resistant

For Multi PUR only:
Professional association Sea:

- EC-General appraisal certificate, approval no. 116.278 and US Coast Guard Approval no.: 164.112/EC0736/116.278 according to IMO-Res. MSC. 61(67)(FTP-Code), annex 1, part 5

Hesse PUR Multicoat lacquer DE 433-2

Good filling, fast-drying, thixotrope, clear two-component- PUR lacquer based on acrylic resin. Multicoat lacquer for base coating and top coating.

Fields of application

The complete field of interior completion, especially applicable for the coating of three-dimensional pieces.

Processing example

Profiled cabinet doors, natural walnut, mat

- Wood sanding with grain 120 - 180
- 3x application with 80 - 100 g/m²
Hesse PUR Multicoat lacquer DE 433-2
Mixture 10 : 1 with PUR-Hardener DR 474-1
- Intermediate drying at least for 2 h at 20°C
- Intermediate sanding with grain 280 – 320
- Packable after drying for at least 16 h at 20°C

Technical data

Mixing ratio: **10:1 with Hardener DR 474-1**

Working viscosity:

18- 20 sec/DIN 4 mm/20°C

Processing time: 1 work day

Pot life: 3 work days

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airless:

Nozzle size: 0,23-0,28 mm

Spray pressure: 100-150 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 2,0-2,5 bar

Important advices

Mixture 5 : 1 with DR 474-1 increases the abrasion resistance and allows the use on bleached surfaces as well.

Order information

Order-No.:	
mat	DE 433-2
silky mat	DE 433-4
silky gloss	DE 433-7
Packaging sizes:	25 litres
Hardener:	DR 474-1
Packaging sizes hardener:	2,5/10 litres
Efficiency per litre:	6-8 m ² each step including overspray
Thinner:	DV 490

Hesse PUR Multicoat lacquer DE 45. (degree of gloss)

Good filling, lightfast, especially scratch resistant, clear two-component-PUR-lacquer based on acrylic resin. Multicoat lacquer for base coating and top coating with high resistance especially to mechanical strain. IMO certified. Product is applicable on bleached wood.

Fields of application

In the complete field of interior completion also for brushing and rolling; also applicable for isolation of MDF-edges, see special advices.

Processing hints

1-3 x application with 100 - 150 g/m² on suitable carriers; maximum total application quantity of the wet film: 450 g/m². If used as flame-retardant coating for seagoing ships: 200 g/m². Pre-treatment of the substrate: graduated wood sanding with grain 120-180, cleaning from dust. Intermediate sanding of the lacquer with grain 220-320.

Technical data

Mixing ratio: **5 : 1 with Hardener DR 470**

Working viscosity:

18- 20 Sec/DIN 4 mm/20°C

Processing time: 1 work day

Pot life: 1 work day

Sandable and recoatable after 4-5 h / 20°C

Packable after 16 h / 20°C

Application

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure : 60 - 100 bar

Atomizing pressure: 1,5 - 2,5 bar

Brushing/ rolling: applicable with addition of 5 - 10 % DV 499

Important advices

Applicable for finishing of Hesse PUR Colour lacquer DB 555-colour tone; results in ring resistance. Hint for the application as isolation for MDF-edges under coloured lacquer systems: Use mixture with 10 - 15 % thinner DV 490. Further coating always the same day - after previous sanding with grain 320.

Order information

Order-No.:	
mat	DE 452
semi mat	DE 454
silky gloss	DE 456
Packaging sizes:	5/25 litres
Hardener:	DR 470
Packaging sizes hardener:	0,1/0,5/1/2,5/5/10 litres
Economy per litre:	6-8 m ² each step including overspray
Thinner:	DV 490

Hesse PUR Top coat DU 51.-1

Good filling, fast drying two-component-PUR-Top coat based on Alkyd resin with very good scratch resistance and grip smoothness

Fields of application

In the interior sector, for fully to closed-pore coatings on suitable carriers.

Processing hints

Interior decoration, walnut, closed-pore, semi mat, stained

- Wood sanding with grain 120-150
- 1 x staining with wiping with Hesse Precious Wood Stain BE 35-20302
- Drying time 2-3 hours
- 2 x priming with 100-120 g/m² with Hesse PUR Insulating Primer DG 572-1, intermediate drying 20-30 min
Mixture 2:1 with Hesse PUR Hardener DR 440
- Drying time 2-5 hours
- Wood sanding with grain 320-400
- 3 x priming with 100-120 g/m²
Hesse PUR Base Coat DG 468-2, intermediate drying 20-30 min, Mixture 1:1 with Hesse PUR Hardener DR 439 + 20% thinner DV 494 (winter) or DV 4981 (summer)
- Drying of minimum 16 hours
- Sanding with grain 320-400
- 1 x finishing with 100-130 g/m²
Hesse PUR Top Coat DU 514-1, Mixture 2:1 with Hesse PUR Hardener DR 435, if necessary dilute with DV 494 or DV 4981
- stackable after drying for minimum 3 hours (room temperature 20°C)

Technical data

Mixing ratio: **2 : 1 with Hardener DR 435**

Delivery viscosity: 20-26 sec / DIN 4 mm / 20 °C

Processing time: 2-3 hours at 20 °C

Pot life: 2-3 hours at 20 °C

Application

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure: 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 60 - 100 bar

Atomizing pressure: 1,5 - 2,5 bar

Important advices

Depending on the desired surface effect and carrier, the surface can be base coated with e.g. DG 468-1 or DG 468-2. Because of the pot life, processing with a 2-component spray gun is recommended. The product is not applicable on bleached surfaces nor on light or wood-foreign stained wood!

Order information

Order-No.:

mat **DU 512-1**

semi mat **DU 514-1**

silky gloss **DU 517-1**

glossy **DU 518-1**

Packaging sizes: 5/10/25 litres

Hardener: **DR 435**

Packaging sizes hardener: 2,5/5/10 litres

Economy per litre: 5 - 7 m² each step including overspray

Thinner: **DV 494**

Retarder: DV 4981, addition max. 5 %

Cleaning thinner: **NV 395**

Hesse PUR-Multicoat lacquer DE 54. (degree of gloss)

Good filling, lightfast, machine sandable two-component-PUR- Lacquer based on acrylic resin with highly efficient light protectors. Multicoat lacquer for base- and top coating with good stability at vertical surfaces. Product can be applied on bleached wood.

Fields of application

Coatings in the complete fields of interior completion for surfaces with highest demands to light fastness and elegance.

Processing hints

1-3 x application with 100 - 150 g/m² on suitable carriers; maximum total application quantity of the wet film: 350 g/m². For especially good resistance and on critical carriers, the product can be mixed 5:1 with DR 470. Pre-treatment of the substrate: graduated wood sanding with grain 120-180, cleaning from dust. Intermediate sanding of the lacquer with grain 220-320.

Technical data

Mixing ratio: **10 : 1 with Hardener DR 470**

Delivery viscosity: 28 - 30 sec / DIN 4 mm / 20°C

Processing time: 1 work day at 20°C

Pot life: 2 work days at 20°C

Sandable and recoatable after 2-3 h / 20°C

Packable: after 16 h / 20°C

Application

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure: 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 60 - 100 bar

Atomizing pressure: 1,5 - 2,5 bar

Curtain coating: applicable

Important advices

Applicable for finishing of DB 555-colour tone; produces ring resistance. Don't use DE 540 (dull mat) as multicoat lacquer, but as one-time top coat only!

Order information

Order-No.:

dull mat **DE 540**

mat **DE 542**

semi mat **DE 544**

silky gloss **DE 547**

Packaging sizes: 5/25 litres

Hardener: **DR 470**

Packaging 0,1/0,5/1/2,5/

sizes hardener: 5/10 litres

Economy per litre: 6 - 8 m² each step including overspray

Thinner: **DV 490, DV 494**

Retarder: **DV 499**, addition max. 5 %

Cleaning thinner: **NV 395, ZD 82**



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)

- DIN EN 71, part 3 (safety of toys)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- Free from wood preservatives

- Free from formaldehyde

- PVC-resistant

Hesse Natural wood effect DA 400-1



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- Free from wood preservatives

- Free from formaldehyde

- PVC-resistant

Brightening, scratch-resistant, dull mat two-component PUR-Natural wood effect with special light protector. Multicoat lacquer for base- and top coating for open-pore constructions. Product is applicable on bleached wood.

Field of application

For all light kinds of wood in the field of interior completion. Especially applicable on soft wood or positive stains.

Processing example

Sideboard maple, dull mat:

- Wood sanding with grain 180
- 1 x base coating with 100 - 120 g/m² Hesse Natural wood effect DA 400-1 Mixture 10 : 1 with PUR-Hardener DR 470
- Intermediate drying 30 - 60 min. at 20°C
- Lacquer sanding with grain 280 - 320
- 1 x finishing with 100 - 120 g/m² Hesse-Natural wood effect DA 400-1 Mixture 10 : 1 with PUR-Hardener DR 470
- Dust dry after 15 - 20 min. 20 °C
- Packable after at least 12 h drying at 20°C

Technical data

Mixing ratio: **10:1 with Hardener DR 470**

Working viscosity:

20-22 sec/DIN 4 mm/20°C

Processing time: 1 work day

Pot life: 1 work day

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airless:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 100 - 150 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure : 60 - 100 bar

Atomizing pressure: 1,5 - 2,5 bar

Important advices

The brightening effect is only reached in case of a direct coating of the wood or on Hydro Stains like e.g. Positive Stains. On dark wood or stains it must be reckoned with haze. Only a fresh lacquer/ hardener mixture guarantees the optimal brightening effect. For reaching differing gloss degrees a coating with e.g. DU 59., DE 56. or DE 55. is recommendable.

Individual colorations are optionally possible with: up to 10 % Hesse PUR-Colour lacquer DB 555-colour tone or

up to 5 % Hesse Colour concentrates for glaze lacquers ZD 1-colour tone or

up to 5 % Hesse Colour concentrates CF.. or CP.. up to CP 70.. series

(exception incompatibility with CP 70.. series).

Order information

Order-No.:	DA 400-1
Packaging sizes:	1/5/10/25 litres
Hardener:	DR 470
Packaging sizes hardener:	1/5/10/25 litres
Economy per litre:	8 m ² each step including overspray
Thinner:	DV 490



Hesse PUR Top coat DU 59. (degree of gloss)

Aromates-free, extremely scratch- and scrub resistant two-component-PUR-lacquer based on acrylic resin, which is even resistant to treatment with steel wool; for open- and closed-pore coatings.

Fields of application

Interior completion, including kitchens, counters, bathrooms; as final coat for especially hard-wearing surfaces on applicable PUR Base coats

Processing example

- Object furnishing, counter, walnut, mat
- Wood sanding with grain 120-150
 - 2 x 100-140 g/m² base coating with Hesse PUR Base coat DG 534 Mixture 10 : 1 with Hardener DR 470
 - Intermediate drying at least for 4 h, 2. coat at least for 16 h at 20°C
 - Each time intermediate sanding with grain 320
 - 1 x 120-140 g/m² finishing with Hesse PUR Top coat DU 592 Mixture 10 : 1 with Hardener DR 471, if required, dilute with DV 494
 - Packable after drying for at least 16 h at 20°C

Technical data

Mixing ratio: **10:1 with Hardener DR 471**

Working viscosity:
22-24 sec/DIN 4mm/20°C

Processing time: 1 day

Pot life: 2 days

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 1,0-2,5 bar

Important advices

For finishing of coloured surfaces DU 59.(gloss level) is only conditionally applicable: Due to the easily abrasive surface structure, an absolute resistance to metallic rings is not reached. The self-colour of this top coat influences the colour tone, especially on dark colour tones fogging is possible.

Order information

Order-No.:

dull mat **DU 590**

mat **DU 592**

silky mat **DU 594**

Packaging sizes: 5/25 litres

Hardener: **DR 471**

Packaging 0,1/0,5/1/2,5/ sizes

Hardener: 5/10 litres

Economy per litre: 5-6 m² including overspray

Thinner: **DV 494**

Hesse NANO PUR Top coat DU 520

Aromates-free, dull mat two-component-PUR Top coat based on acrylic resin, which is characterized by special transparence, scratch resistance, touch smoothness and regular matting without clouds also on dark undergrounds.

Fields of application

In the complete field of interior completion, on all colourless PUR Base coats and as finish on PUR colour lacquers.

Processing example

- Object furnishing, black, dull mat
- Carrier: foiled MDF-board, treated with filler
 - Sanding with grain 320
 - 1 x 120-140 g/m² base coating with Hesse PUR Colour lacquer DB 555-9005 Mixture 10 : 1 with Hardener DR 470
 - Drying at least for 4 h
 - Slight intermediate sanding with grain 400
 - 1 x 100-120 g/m² finishing with Hesse NANO PUR Top coat DU 520 Mixture 10 : 1 with Hardener DR 470
 - Drying at least for 16 h

Technical data

Mixing ratio **10:1 with Hardener DR 470**

Working viscosity:
22-24 sec/DIN 4 mm / 20°C

Processing time: 1 work day

Pot life: 2 days

Application

Spraying (maybe addition of thinner is required)

Air spraying (cup):

Nozzle size: 1,8-2,0 mm,

Spray pressure : 2,5-3,5 bar

Airless:

Nozzle size: 0,23-0,28 mm,

Spray pressure: 90-150 bar

Airmix:

Nozzle size: 0,23-0,28 mm,

Spray pressure : 60-100 bar,

Atomizing pressure: 1,0-2,5 bar

Order information

Order-No.:

dull mat **DU 520**

Packaging sizes: 5/25 litres

Hardener: **DR 470**

Packaging 0,1/0,5/2,5/

sizes hardener: 5/10 litres

Economy per litre: 5-6 m² each step including overspray

Thinner: **DV 494**



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)

- DIN EN 71, part 3 (safety of toys)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- Free from wood preservatives

- Free from formaldehyde

- PVC-resistant

Hesse PUR Soft Grip effect DU 44130



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories

- DIN 68861 – part 1C (Furniture surfaces; behaviour at chemical strain)

- DIN EN 71, part 3 (safety of toys)

- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- Free from wood preservatives

- Free from formaldehyde

- PVC-resistant

With Hesse PUR Soft Grip effect, many new effect ideas of the general trend „dull mat“ can be realized. No matter, if oak in natural wood effect, styled with relief structure or as top coat on Hesse Colour lacquers, the Soft Grip effect is characterized by its pleasantly-softy surface feeling and its amazing scratch resistance.

Fields of application

Decorative interior completion, furniture with special surface feeling.

Processing example

Oak with grey pore:

Brush oak wood thoroughly

- 2 x thin base coating with Hesse PUR Natural wood effect DA 400-1 Mixture 10 : 1 with Hardener DR 470 + at least 20 % Thinner DV 490
- intermediate sanding with grain 400
- Drying at least for 16 h at 20°C
- 1 x spraying with Hesse Wiping stain TD 4220-7030 stone grey
- 1 x 120-200 g/m² finishing with Hesse Soft Grip effect DU 44130 Mixture 5 : 1 with Hardener DR 4078

Technical data

Mixing ratio: **5 : 1 with Hardener DR 4078**

Working viscosity:

20-22 sec/DIN 4 mm/20°C

Processing time: 4- 5 h at 20°C

Pot life: 4- 5 h at 20°C

Application

Spraying, check viscosity regularly during the process

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airmix:

Nozzle size: 0,23 - 0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 1 - 1,5 bar

Important advices

Due to the slight milky self-colour of the material, on dark stains or colour lacquers greying may occur.

Hints for cleaning and care:

Please use damp, soft cloth e.g. of microfibre.

The fat-soluble effect can be supported by the addition of customary, mild household detergents. Clean only damp, not soaking wet. Remove dyeing liquids like red wine, coffee, tea, mustard etc. immediately with water, in order to avoid lasting discolorations.

Order information

Order-No.: **DU 44130**

Packaging sizes: 5/25 litres

Hardener: **DR 4078**

Packaging sizes hardener: 0,1/0,5/1/2,5 litres

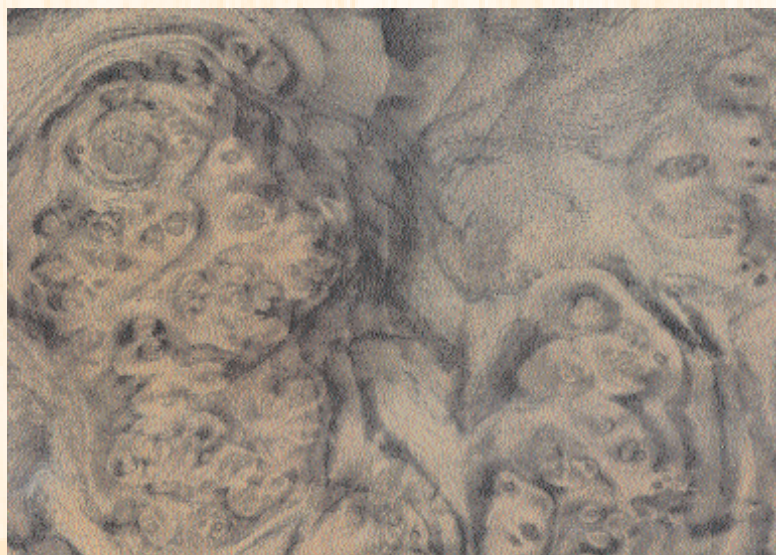
sizes hardener:

Economy per litre: 4 - 7 m² per step including overspray

Thinner: **DV 490, DV 494**

Retarder: **DV 499**, addition max. 5 %

Cleaning thinner: **NV 395**



Hesse PUR-Acrylic Brilliant lacquer DU 429

Clear, lightfast, high gloss two-component PUR-lacquer based on acrylic resin with especially good scratch resistance. Finish for clear and pigmented surfaces; can be polished and buffed after drying over night. IMO certified.

Fields of application

For kitchen, bathroom, office, in the complete living sector, like e.g. for tables, sideboards or as finish on Hesse Effect lacquers.

Processing hints

1-2 x application with 100 - 150 g/m² on suitable carriers; maximum total application quantity of the wet film: 300 g/m². If used as coating material for ship's interiors: max. total application quantity of the wet film: 150 g/m². Pre-treatment of the substrate: graduated sanding with grain 400-800, cleaning from dust. Polishing procedure see specific technical information "Polishing"

Technical data

Mixing ratio **2:1 with Hesse-PUR-Hardener DR 484**

Working viscosity:

14-16 sec/DIN 4 mm/20°C

Processing time: 1- 2 hours at 20°C

Pot life: 2- 3 hours at 20 °C

Polishable: after 24 h / 20°C

Packable: after 2-3 days / 20°C

Application

Spraying: 2 x in a time distance of 30 min. 20% addition of thinner DV 499 is recommended.

Check viscosity regularly during application process.

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure : 2,5-3,5 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar

Atomizing pressure: 1,5-2,5 bar

Important advices

Application recommended on: DG 572, DG 572-1, DG 417, DG 468-1, DG 468-2 or coloured lacquers e.g. DB 555-colour tone and various effects.

Order information

Order-No.:	DU 429
Packaging sizes:	5/25 litres
Hardener:	DR 484
Packaging sizes hardener:	2,5 litres
Economy per litre:	6-8 m ² per step including overspray
Thinner:	DV 499
Cleaning thinner:	NV 395

Hesse PUR-Brilliant lacquer DU 449

Clear, good-filling, brilliantly drying two-component PUR-Lacquer based on polyester resin with highest resistance values; can be polished and buffed. IMO certified.

Fields of application

As finish on applicable PUR Base coats in the complete field of interior completion, as well as kitchen and bathroom.

Processing hints

1-2 x application with 100 - 120 g/m² on suitable carriers; maximum total application quantity of the wet film: 240 g/m². If used as coating material for ship's interiors: max. total application quantity of the wet film: 120 g/m². Pre-treatment of the substrate: graduated sanding of the suitable base coat with grain 400-800, cleaning from dust. Polishing procedure see specific technical information "Polishing"

Technical data

Mixing ratio: **2:1 with Hesse-PUR-Hardener DR 404**

Delivery viscosity: 14-16 Sec/DIN 4 mm, 20°C

Processing time: 4-5 hours at 20°C

Pot life: 4-5 hours at 20°C

Polishable and packable: after 3 days / 20°C

Application

Spraying: 2 x in a time distance of 30 min.

10-20% addition of thinner DV 499 or DV 4981 is recommended. Check viscosity regularly during application process.

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure : 2,5-3,5 bar

Airmix:

Nozzle size: 0,23-0,28 mm

Spray pressure: 60-100 bar,

Atomizing pressure: 1,5-2,5 bar

Important advices

Recommended base coats: DG 468-1, DG 468-2, DG 572, DG 571-1

Order information

Order-No.:	DU 449
Packaging sizes:	5/25 litres
Hardener:	DR 404
Packaging sizes hardener:	0,1/0,5/1/2,5/5/10 litres
Economy per litre:	6-8 m ² per step including overspray
Thinner:	Special thinner DV 494 (winter), DV 4962 (summer)
Retarder:	DV 4981
Cleaning thinner:	NV 395



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from wood preservatives
- Free from formaldehyde
- PVC-resistant

Professional association Sea:



- EC-General appraisal certificate, approval no. DU 449 = 116.258 DU 429 = 116.259

US Coast Guard
Approval no.:
DU 449 = 164.112/
EC0736/116.258
DU 429 = 164.112/
EC0726/116.259
according to IMO-Res.
MSC. 61(67)(FTP-Code),
annex 1, part 5

PUR-COLOUR SYSTEMS



Hesse PUR Colour lacquers for the coloured design in the interior, are perfectly adjusted for a practical use in the sector of craft and trade. With this system you will get first-class colour lacquers, which fulfill even the strongest demands. The products are known for high covering ability, light fastness and quick drying as well as for excellent feel, stand and look. They can be applied on surfaces with normal up to strong wear in the whole interior sector. The surface look ranges from open pore to dull-finish lacquer.

Hesse PUR Pigment Filler DP 491-colour tone

Well filling, pigmented 2C PUR Base coat for the coloured, closed-pore coating with an extremely wide field of application. Hardly inflammable according to DIN 4102 B1 in combination with DB 555-colour tone tested and controlled; IMO-certified.

Fields of application

In the whole field of interior decoration as well as in kitchen, bathroom with suitable finish; on the most different kinds of wood as well as on priming foils and suitable MDF-carriers. Also applicable as adhesion primer on many plastics (degrease carrier before).

Processing hints

1-4 x application with 150 – 200 g/m² on suitable carriers; max. total application quantity of the wet film 600 g/m²; max. application quantity if used as hardly-combustible coating material for seagoing vessels 140 g/m² (only valid for DP 491-9343). Pre-treatment of the carrier: prescribed sanding

Technical data

Mixture: **4 :1 with DR 405** (by volume)
Working viscosity:
22-32 sec./DIN 4 mm/20°C
Processing time: 3-4 h
Pot life: 5-6 h
Sandable and
recoatable: after 4-5 h / 20°C, better over night

Application

Spraying: addition of thinner required.
Air spraying (cup):
Nozzle size: 2,0 mm
Spray pressure: 2,5-3,5 bar
Airless:
Nozzle size: 0,33-0,41 mm
Spray pressure: 100-150 bar
Airmix:
Nozzle size: 0,33-0,41 mm
Spray pressure : 60-100 bar
Atomizing pressure: 1,5-2,5 bar
Curtain coating: possible with a working viscosity of 30-40 sec

Important advices

After previous sanding, recoatable with many CN, PUR- and Hydro-colour lacquers and most of the customary lacquers.

Order information

Order-No:	
white	DP 491-9343
black	DP 491-9005
Packaging sizes:	1/5/10/25 litres
Efficiency per litre:	3-4 m ² each work step Including overspray
Hardener:	DR 405
Packaging sizes	
hardener:	1/5 litres
Thinner:	DV 490, DV 494
Retarder:	DV 499 , addition max. 5 %
Cleaning thinner:	NV 395

Hesse PUR-Acrylic-Isolating filler DP 492-9343

Quickly-sandable, thixotrope, pigmented 2C- PUR Base coat based on acrylic resin for the coloured, closed-pore coating; lightfast with an extremely wide field of application.

Fields of application

In the whole field of interior decoration as well as in kitchen and bathroom with suitable finish; particularly for MDF-base coating without special pre-treatment of the edges. On the most different kinds of wood and on priming foils. Also applicable as adhesion primer on many plastics.

Processing hints

1-4 x application with 150 – 200 g/m² on suitable carriers; max. total application quantity of the wet film 600 g/m²; Pre-treatment of the carrier: prescribed sanding

Technical data

Mixture: **10 :1 with hardener DR 471**
Working viscosity:
30-35 sec./DIN 4 mm/20°C
Processing time: 3-4 h at 20°C
Pot life: 4-6 h at 20°C
Sandable and
recoatable: after 3-4 h / 20°C, better over night

Application

Spraying: addition of thinner required
Air spraying (cup):
Nozzle size: 2,0 mm
Spray pressure: 2,5-3,5 bar
Airless-spraying:
Nozzle size: 0,33-0,41 mm
Spray pressure: 100-150 bar
Airmix:
Nozzle size: 0,33-0,41 mm
Spray pressure : 60-100 bar
Atomizing pressure: 1,5-2,5 bar
ES-spraying: applicable; working viscosity
max. 20 sec./DIN 4 mm/20°C

Important advices

After previous sanding, recoatable with many CN, PUR- and Hydro-colour lacquers and most of the customary lacquers. Mixture 10 : 1 with hardener DR 485 or DR 470 will shorten the drying time. If used on MDF-edges, both mixtures require a previous isolation with e.g. diluted DG 417.

Order information

Order-No:	
white	DP 492-9343
Packaging sizes:	5/25 litres
Efficiency per litre:	3-4 m ² each work step Including overspray
Hardener:	DR 471
Packaging	0,5/1/5 litres
sizes hardener:	
Thinner:	DV 494
Retarder:	DV 499 , addition max. 5 %
Cleaning thinner:	NV 395



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- Free from formaldehyde
- After finish with Hesse PUR Colour lacquer DB 555-9010, following test standards are fulfilled:
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)

- PVC-resistant

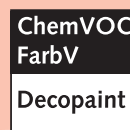


- DP 491-9343 is hardly inflammable according to DIN 4102-B1, test certificate, PBWU03-I-16.2.502 in combination with PUR Colour lacquer DB 555-colour tone on hardly combustible MDF-boards according to P-BWU03-I-16.5.86 DIN 4102-B1

DP 491-9343
Professional association Sea:



- EC-General appraisal certificate, approval no. 116.213 according to IMO-Res. MSC. 61(67)(FTP-Code), annex 1, part 5



- Fulfills the demands of the Decopaint guideline (solvent-borne paint and lacquer directive – ChemVOCFarbV of 23 December 2004)

Hesse PUR Colour lacquer DB 555-.... colour tone

Professional association Sea:



- EC-General appraisal certificate, approval no. 116.226, approval no. 164.112/EC0736/116.226, according to IMO-Res. MSC. 61(67)(FTP-Code), annex 1, part 5



Entwicklungs- und Prüflabor

- Test report 273941
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- PVC-resistant according to Rosenheim direction



Fraunhofer Wilhelm-Klauditz-Institut Holzforschung

- Free from formaldehyde (test report no. B731/03)



- Hardly inflammable according to DIN 4102-B1, test certificate 16-902 107 000 b, in combination with PUR Pigment filler DP 491-93443 on hardly combustible MDF-boards according to P-BWU03-I-16.5.86

- DIN EN 71, part 3 (safety of toys)

Pigmented, lightfast, semi mat, two-component PUR lacquer based on acrylic resin. Multicoat lacquer for base- and top coating, which combines high covering capacity with good resistance to metallic rings, excellent leveling, good stand on vertical surfaces and easy processing. Carriers treated with PUR Colour lacquer are known for their elegance and pleasant feel, high resistance to chemical and mechanical strain and PVC-resistance. Available in almost all colour tones. Flame resistance is certified and supervised according to 4102 B1 in combination with DP 491-9343; IMO certified.

Fields of application

Whole interior completion, boat interior coating, panel works.

Perfectly suitable for strongly strained surfaces like e.g. for restaurants, kitchens and bathrooms or for tables etc; Multicoat lacquer for base- and top coating for coarse-pore kinds of wood like ash and oak. Excellently applicable for MDF-coatings and priming foils. Applicable up to surfaces looking like egg-shell finish. If used as hardly combustible coating material for seagoing ships, maximum total application quantity of the wet film: 150 g/m²

Processing example

Medical practice: ash, open-pore white, with wetted pore, semi mat

- Wood sanding with grain 150
- 1 x base coating with 200 - 300 g/m² Hesse PUR Colour lacquer DB 555-9010 Mixture 10 : 1 with PUR Hardener DR 470
- Diluted with 20 - 30% of PUR Thinner DV 490
- Apply richly, so that the pores look close, when wet
- Drying for at least 5 h at 20°C
- Lacquer sanding with grain 280 - 320
- Finishing with 100 -150 g/m² Hesse PUR Colour lacquer DB 555-9010, white Mixture 10 : 1 with PUR Hardener DR 470
- Diluted with 10 - 20% PUR Thinner DV 490
- Dust-dry after 20 - 30 min. Complete dry after at least 16 h at 20°C.

Technical data

Mixing ratio **10:1 with hardener DR 470**

Working viscosity:

17-25 sec./DIN 4 mm/20°C

Processing time: 1 work day

Pot life: 1 work day

Application

Spraying:

Air spraying (cup):

Nozzle size: 1,8-2,0 mm

Spray pressure: 2,5-3,5 bar

Airless:

Nozzle size: 0,28-0,33 mm

Spray pressure: 100-150 bar

Airmix:

Nozzle size: 0,28-0,33 mm

Spray pressure: 60-100 bar

Atomizing pressure: 2,0-2,5 bar

Curtain coating: applicable with a working viscosity of 35-40 sec.

Important advices

If an absolute ring-, colour abrasion resistance or a different gloss degree is required, please finish with diluted DE 56. or DE 55. Material is also applicable as finish on metals or plastic foils, which are pre-treated with primer. Please check adhesion. If you want to speed-up the complete drying it can be hardened 10 : 1 with DR 485. (Attention: Short pot life; usage only on carriers, which are primed with PUR Fillers)

For the use as especially hard-wearing and /or abrasion resistant coating, we recommend a hardening ratio of 5:1 with DR 470 (attention: longer hardening time). Applicable also on glass, if special additive and hardener for glass is used. See page 75.

Order information

Order-No.:

Semi mat **DB 555-... colour tone**

Packaging sizes: 1/5/10/25 litres

Efficiency per litre: 3 - 4 m² each work step

Hardener: **DR 470**

Packaging sizes hardener: 0,1/0,5/1/2,5/

5/10 litres

Thinner: **DV 490, DV 494**

Retarder: **DV 499, add max. 5 %**

Cleaning thinner: **NV 395**

Colour tones: Available in almost all colour tones at the Hesse-Retailer, e.g. according to RAL, NCS and other colour tone patterns.

Hesse PUR Colour lacquer DB 474-.... colour tone

Pigmented, rapidly drying, thixotrope two-component PUR lacquer based on polyester resin with high covering capacity and good resistance to metallic rings. Multicoat lacquer for base- and top coating.

Fields of application

Specially for direct coating of MDF in the whole field of interior completion, as well as kitchen, bathroom; Maximum total application of the wet film, if used as flame-retardant coating material for seagoing ships: 2 x 120 g/m²

Processing example

Medical practice, MDF-coating closed-pore, semi mat RAL 7035 light grey

- Sanding of edges and surfaces with grain 150
- 1 x priming of the edges with 100 - 160 g/m² Hesse PUR Colour lacquer DB 474-7035 Mixture 2 : 1 with PUR-hardener DR 425
- Drying at least for 1 h at 20°C
- Lacquer sanding with grain 280 - 320
- 1 x application of edges and surface with 100 - 160 g/m² Hesse PUR Colour lacquer DB 474-7035 Mixture 2:1 with PUR-hardener DR 425
- Drying at least for 1 h at 20°C
- Lacquer sanding with grain 280 - 320
- 1 x application of edges and surface with 100 - 160 g/m² Hesse PUR Colour lacquer DB 474-7035 Mixture 2:1 with PUR-hardener DR 425

Technical data

Mixing ratio: **2:1 with hardener DR 425**

Working viscosity:

20-22 sec. / DIN 4 mm / 20°C

Processing time: 1 h

Pot life: 3 h

Application

Air spraying (cup):

Nozzle size : 1,8 - 2,0 mm

Spray pressure : 2,5 - 3,5 bar

Airmix:

Nozzle size: 0,28 - 0,33 mm

Spray pressure: 60 - 100 bar

Atomizing pressure: 1,5 - 2,5 bar

Check viscosity regularly during processing.

Due to the short pot life we recommend application with 2C-spray gun.

Important advices

For all direct foil coatings, a previous adhesion test is required!

Order information

Order no.:

Semi mat **DB 474-... colour tone**

Packaging sizes: 10/25 litres

Efficiency per litre: 3 - 4 m² each work step

Hardener: **DR 425**

Packaging sizes hardener: 2,5/5/10 litres

Thinner: **DV 494**

Retarder: **DV 499**, add max. 5 %

Cleaning thinner: **NV 395**

Colour tones: available in many colour tones



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from wood preservatives
- Free from formaldehyde
- PVC-resistant

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PUR-COLOUR SYSTEMS

Professional association Sea:



- EC-General appraisal certificate, approval no. 116.224 according to IMO-Res. MSC. 61(67)(FTP-Code), annex 1, part 5



Hesse PUR-Brilliant Colour lacquer DB 449-.... colour tone

Pigmented, high gloss two-component PUR lacquer based on polyester resin.
Can be polished and buffed



- Free from phthalate plasticizers, therefore also applicable for the coating of children's toys and baby accessories
- DIN 68861 – part 1B (Furniture surfaces; behaviour at chemical strain)
- DIN EN 71, part 3 (safety of toys)
- DIN V 53160, part 1 and part 2 (resistance to saliva and sweat simulation): no discoloration (level 5)
- Free from wood preservatives
- Free from formaldehyde

Fields of application

As coloured top coat on suitable PUR fillers for the whole interior sector, e.g. for kitchen, bathroom, pianos etc.

Processing example

- Cabinet, MDF, black, high-gloss
- 2 x base coating with 150-200 g/m²
Hesse PUR Pigment filler DP 491-9005
Mixture 4:1 with Hesse Hardener DR 405
 - Diluted with 5-15% of Hesse Thinner DV 490
 - Drying for at least 12 h at 20°C
 - Graduated lacquer sanding with grain 280-400-600
 - 2 x finishing with 80-120 g/m² Hesse PUR Brilliant Colour lacquer DB 449-9005
Mixture 2:1 with Hesse Hardener DR 404
 - Diluted with 10-20 % Hesse Thinner DV 494
 - Dust-dry after 20-30 min. at 20°C
 - Packable or ready for buffing after drying for 3 days at 20°C

Technical data

Mixture: **2:1 with hardener DR 404**
Spray viscosity: 15 - 17 sec. / DIN 4 mm, 20°C
(addition of thinner recommended)
Check viscosity regularly during processing.
Processing time: 4 hours

Application

Spraying:
Air spraying (cup):
Nozzle size: 1,2 - 1,5 mm
Spray pressure : 2,5 - 3,5 bar
Airmix:
Nozzle size: 0,23 - 0,28 mm
Spray pressure: 60 - 100 bar
Atomizing pressure: 1,5 - 2,5 bar

Important advices

High-gloss finishes are difficult to produce. Pre-conditions for success are a.o.: dust-free rooms, perfect work tools and application experience. Anyhow, mostly dust cannot be completely eliminated. The best high-gloss results are achieved by buffing the surface. See separate technical information sheet "Polishing/Buffering".

Order information

Order no.:	DB 449-... colour tone
Packaging sizes:	10/25 litres
Hardener:	DR 404
Packaging sizes hardener:	5/10 litres
Efficiency per litre:	3 - 4 m ² each work step including overspray
Thinner:	DV 494 (winter), DV 4999 (summer)
Retarder:	DV 499 add max. 5 %
Cleaning thinner:	NV 395





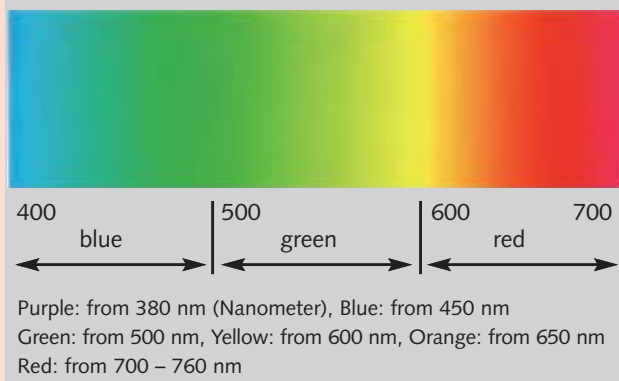
What is Colour?

Anno 1704, when analysing the light, the English physicist Isaac Newton found the spectrum by passing a thin beam of light into a dark room and observing it through a glass prism (as illustrated below). He saw the refraction of the white light into its spectrum colours.

In physical sense, colour is that part of the light, which is reflected by an object, while the colours, which are absorbed by the object, remain invisible.

That consistently means, the message „roses are red“ is wrong, because roses keep all colours, but red. The red colour spectrum is reflected and so arrives into the eye of the observer, whose brain signalizes „red“. The reflected wave lengths of the colours of the visible light can be measured by a measuring instrument like e.g. the colour computer: Certainly, our brain is no colour computer, it cannot directly identify the wave lengths of the reflected rays as colour.

Colour Spectrum of the visible light



By a very complex process of switchings between eye and brain and corrections made by the brain, the electromagnetic radiation becomes an understandable information, the impression of „Colour“.

Colour vision:

In the eyeground, colour is noticed by three kinds of colour-sensitive receptors, the so-called retinal cones. Together with the information of the rods, which are responsible for the black/white vision, all information is transferred by the optic nerve to the brain, which transforms everything to colour impressions.

This implies also, that we see two surfaces of different size, which are painted with the same colour, as if they were different in colour. The reason for that is the picture of the object on the retina, the so-called visual field. When comparing samples of different size, the **visual field-dependent colour differences** origin in the cones and rods, which are differently allocated on the retina.

A further phenomenon is the **lateral inhibition**. This is the term for colour differences of two surfaces of the same size and colour, developed by the shadow effect, if the two comparison surfaces are not placed directly side by side, but with a small intermediate space. According to which eye projects the gap on the retina and adds it to the colour impression, either the right or the left surface appears brighter or darker. The colour impression can also be effected by different kinds of light. An example is the so-called **metamerism** (tristimulus). Two colours, matching under daylight, differ when viewed under neon light. Reason: The two colours have been formulated with different pigments and/or dyes or with different amounts of the basic colours. When adjusting a colour, either the ambient light should be considered or the colour should be adjusted preferably without colour change under lighting variation. Consequently, the colour impression is depending on many different factors:

The object with its surface structure (smooth, rough, mat, glossy etc.), the light / kind of light, the viewing angle and position and the observer himself. Also colour blindness, like daltonism is relatively prevailing. Test your colour vision, which figure do you see?



Realizing colour and translating it as a colour impression, requires wide practical experience and a trained eye.

Colour adjustments

To a great extent, the colour adjustments of Hesse-Lignal are made by colorimeter at D65 light (standardized daylight) considering the minimum colour change under lighting variation, with an exactness in the full-tone sector of Delta E 0,2, measured according to CIE Lab. For this, the lacquer is applied, dried and measured with always the same parameters on the test carrier, like constant film thickness and application method. Also the processor will only obtain constant colour results under constant application conditions.

However, even with most modern, computer-assisted measuring methods it is not possible to guarantee 100% of colour consistency of different batches. This is the same with many other products of daily use, like textiles, wallpapers, sanitary ceramics, wall tiles etc.

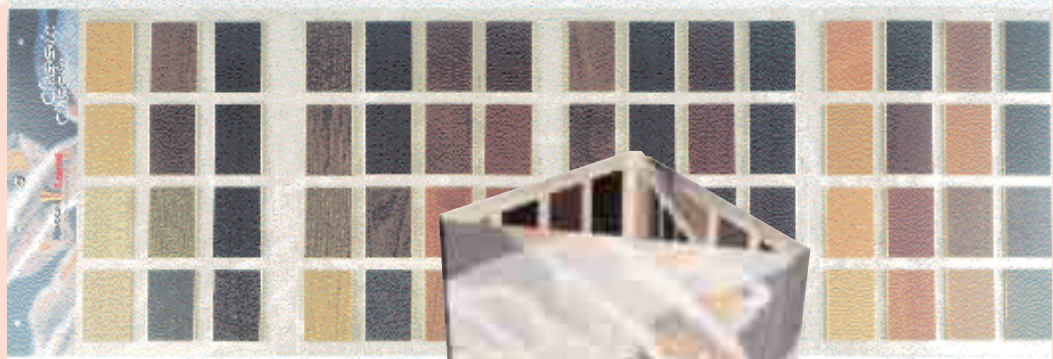
Even in additional deliveries of proven colour catalogues, visual deviations from previous versions can not be precluded. **For this reason, in project workshops, all participants should compare their colour patterns!**

Stain mixing system

With the Hesse stain mixing system, almost all standard Hesse stain colour tones, e.g. from stain sample cards, can be produced. But the production of colour tones, which are adjusted according to other colour ranges is possible, as well. The range of stains, which can be produced by means of the stain mixing system is permanently growing and completed.

All dyestuff- and pigment concentrates, binding agents and additives, which are needed for the production of these stains, are summarised in one basic range. You can produce the following stain systems with this range:

Precious wood stains · Priming stains · Colour stains · Positive stains
Gloss stains · Hydro-Rustic stains · Parquet stains



Spectrophotometer

The all-new Hesse spectrophotometer makes it possible, to measure, formulate and dose all kinds of opaque systems with one program only. It's an absolute highlight, that from now on even the colour tones of stains and glazes can be recorded and formulated.

The Hesse-spectrophotometer is a portable one with spherical geometry, which allows the measuring of colour tones on all kinds of substrates.

The mobile spectrophotometer can also measure the colour tones of fixed built-in parts. The measurement of the colour tone is made precise and fast. The saving of the formulations based on the measured data allows a quick reproducibility of the stains, glazes or colour lacquers.

The local lacquer factory

You urgently need a colour lacquer of a certain colour tone, perhaps the same tone as pearl-structure lacquer or as glass lacquer? You need a particular stain, adjusted according to your wood? No problem!
The Hesse base retailer situated nearby you is „Your local lacquer factory“. Profit of this service!

Coloured lacquers

The mixing of the Hesse colour lacquers is made with our approved Hesse Mix-Master as „lacquer to lacquer mixture“, as well as also with our new all-automatic Hesse paste-mixing machine.

Based on a formular stock of more than 20.000 formulars, both systems offer an almost unlimited variety. The formular stock includes a wide range of adjusted colour tones from the most different colour cards. Furthermore, the coloration of your desired colour tone according to individual patterns is possible, as well.

The basis for this is the millionfoldly proven Hesse PUR Colour lacquer DB 555-colour tone. By addition of specific concentrates, the standard colour lacquer can be modified as follows:

mat version	DBM 45242-Colour tone
silky gloss version	DBM 45247-Colour tone
almost ring	DBM 45575-Colour tone
resistant quality	
brushable version	DBM 46125-Colour tone
Pearl structure, course	DB 482-Colour tone
Pearl structure, medium	DB 483-Colour tone
Pearl structure, fine	DB 484-Colour tone
Nap effect	DB 494-Colour tone
Glass lacquer	DBM 42105-Colour tone
Mixture	5 : 1 with hardener
	DR 4076-1

For applications under the terms of ChemVOCFarbV (Decopaint) our Hydro Colour lacquer can be processed either with or without hardener, depending on the load criterions. The adequate alternative:

Hesse Hydro PUR-Colour lacquer
HDB 655-Colour tone

