ROTHSCHENK

TEST CERTIFICATE

EUROSAFE global transport safety

Version: 01	Testing the stability of loading units with small containers (HDPE and metal) with a filling volume of 20-60 litres on 80 x 120 cm EURO and CP 2 wooden pallet				EUROSAFE certificate no. 2024-02-001
EUROSAFE Certificate no.	2024-02-001	**Test location**	Warehouse and factory area of G+H GmbH Rothschenk	**Test date**	27/09/2023 (EN 12195-1) 15/02/2024 (DIN EN 12642)
Client	G&H GmbH Rothschenk	**Persons present**	Client: Thomas Lorenz, Andre Bauer Tester: Wolfgang Neumann/EUROSAFE		

1. inclination test according to DIN EN 12195-1
The load units were statically tested with an angle of inclination of at least 39 degrees transverse/longitudinal. The test duration in the tilted state was > 30 seconds.
2. driving dynamics test based on DIN EN 12642 Annex B
3 x braking manoeuvres in longitudinal and transverse direction > 0.8 g with Sprinter vehicle

Test objects:

No.	Designation	Article no. Rothschenk	Dimensions L x W x H (mm)	Net Weight (kg)	Result
1	30 l PE can with 2" filler neck and venting cap	23366	320 x 291 x 495	30	passed
2	30 litre HDPE canister	14946	390x270x400	30	passed
3	30-50 litre HDPE can with clamping ring lid / metal bung barrel and metal clamping ring lid barrel	14946	366/344 (∅) x 408	30-50	passed
4	60 litre HDPE canister	14946	390x330x640 mm	60	passed
5	21 litre HDPE can with clamping ring lid	23366	305/290 (∅) x 380	20	passed
6	20 litre hobbock with clamping ring lid	23366	280 (∅) x 386	20	passed
7	30 litre HDPE hobbock with clamping ring lid	23366	350 (∅ Outside) x 406	30	passed
8	30 litre steel can	23366	280 x 505	30	passed

Fig.1 : Overview of the tested packaging variants
Note on the table: The tested packaging is shown in examples in Figs. 2-7.

LE formation: Rothschenk drum lashing system placed on top, with PET strap (15.5 mm x 0.9 mm, elongation at break 8 - 14 %) with a minimum breaking load of 340 daN, looped through the pallet. The tensile strength of the PET strap is ≥ 430 N/mm². A full-surface anti-slip mat or alternative friction-enhancing material with a μ value ≥ 06 must be used between the container and the pallet. The PES webbing used has a tensile strength (linear) of 3000 daN.

Pallet design: CP 2 wooden pallet or EURO pallet 80 x 120 cm.
Total pallet weight: from approx. 20 kg to 60 kg (packaging) plus approx. 25 kg wooden pallet.

Increasing the coefficient of friction: When using PE containers, a material that increases the coefficient of friction must always be placed between the pallet and the container. The certified coefficient of friction according to VDI 2700 Sheet 14 must be μ ≥ 0.6. The minimum thickness of the anti-slip mat is 2 mm. In the case of metal containers, the friction-enhancing pads between the pallet and the container can be dispensed with.

Load securing: The test carried out does not replace load securing. The entire load unit must be secured in accordance with EN 12195-1, the VDI 2700 basic work and VDI 2700 Sheet 2.

Applied standards/norms:	DIN EN 12195-1 (inclination test) ≥ 39 degrees lengthwise and crosswise and additionally in accordance with DIN 55415 (inclination test)

Examples of loading units:

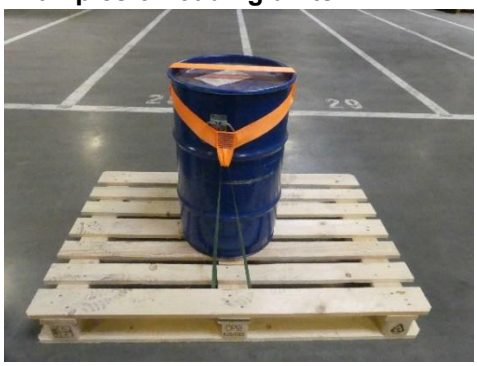

Fig. 2: 30-50 litre metal bung barrel

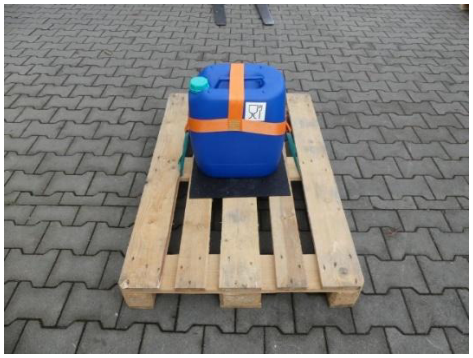

Fig. 3: 30 litre HDPE canister

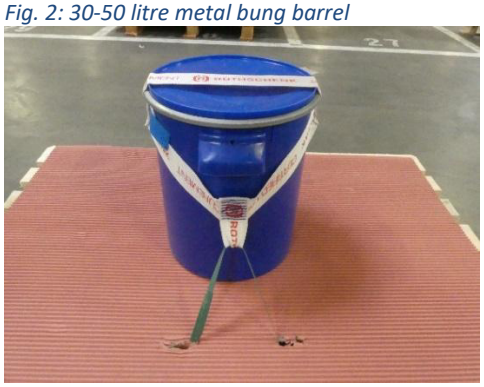

Fig. 4: 30 litre hobbock

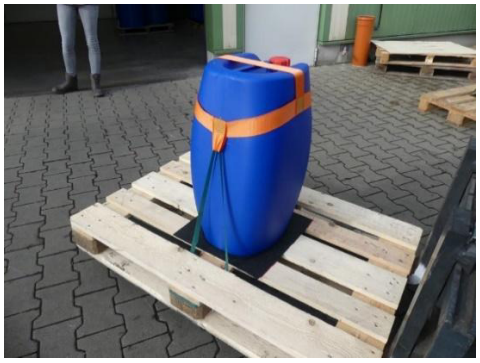

Fig. 5: 60 litre HDPE canister (hobbock)

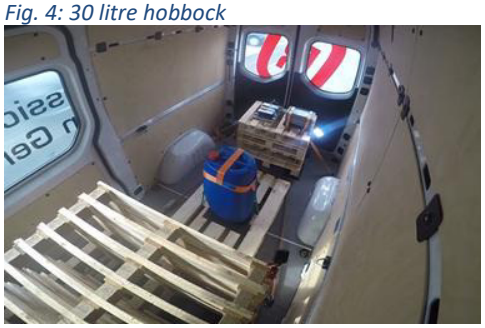

Fig. 6: 60 litre HDPE canister (hobbock), Example of emergency braking

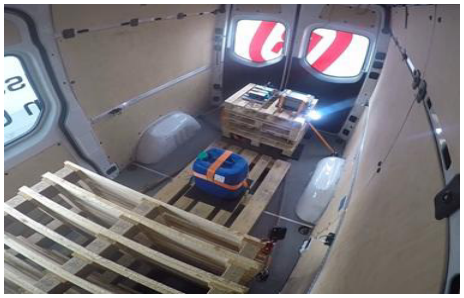

Fig. 7: 30 litre HDPE canister, example of full braking

Tester Complete system:	EUROSAFE GmbH Wolfgang Neumann, personally certified expert in accordance with DIN EN ISO/IEC 17024:2012 for road, rail and sea transport (including dangerous goods) for load securing, packaging and load unit formation	**Certification number Examiner:**	ZN-20120507-0253 valid until 08/2027
Signature / Stamp:	Verpackung und Ladungssicherung Euro Zert Certification Überwacht durch: SVG Euro-Zert GmbH Wolfgang Neumann DIN EN ISO/IEC 17024:2012 ZN-2012-05-07-0253 Gültig bis 08/2027 Personenzertifizierter Sachverständiger	**Place of issue**: Am Germanenring 30 63486 Bruchköbel **Date:** 29/02/2024	
Author:	Wolfgang Neumann ö.b.u.v. expert		