DLG Test Report 7094

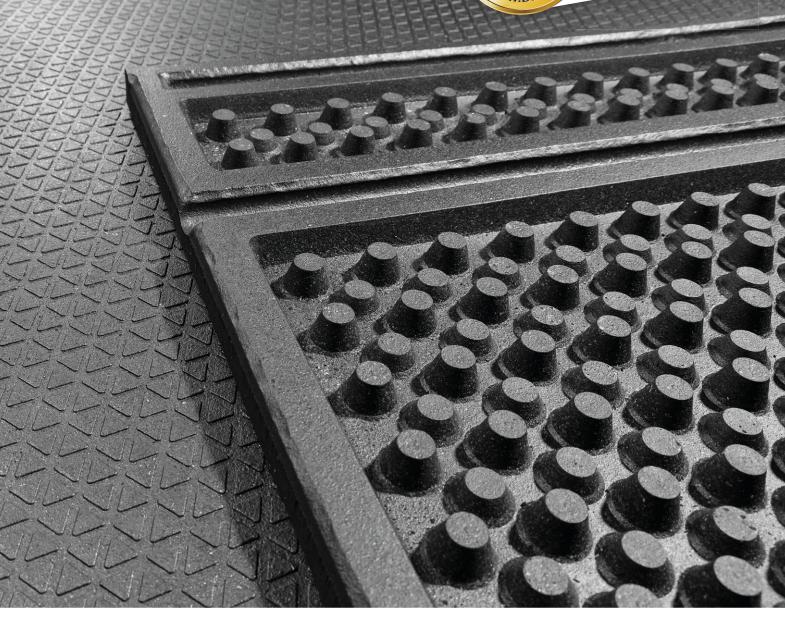
Addition(s) to page(s) 2, 3, 4

DeLaval

Rubber Mat RM 32

Slip resistance







Overview

A test mark "DLG APPROVED for individual criteria" is awarded for agricultural products which have successfully fulfilled a scope-reduced usability testing conducted by DLG according to independent and recognised evaluation criteria. The test is intended to highlight particular innovations and key criteria of the test object. The test may contain criteria from the DLG test scope for overall tests, or focus on other value-determining characteristics and properties of the test



subject. The minimum requirements, test conditions and procedures as well as the evaluation bases of the test results will be specified in consultation with an expert group of DLG. They correspond to the recognised rules of technology, as well as scientific and agricultural knowledge and requirements. The successful testing is concluded with the publication of a test report, as well as the awarding of the test mark which is valid for five years from the date of awarding.

The DLG Approved Test "Slip resistance" includes technical measurements on test stands of the DLG Test Center. The test was based on the DLG Testing Framework for elastic stable flooring, as of December 2018 and DIN 3763:2022-08 (Elastic floorings for cattle and dairy cows walking and rest surfaces – Requirements and Testing). [1] Other criteria were not investigated.

Assessment in brief

The DeLaval rubber mat RM 32 tested here, an elastic floor covering for the resting area in cubicle houses, was investigated on test stands in the DLG Approved Test. The deformability and elasticity, the abrasion resistance, the slip resistance, were measured and a permanent tread load was applied.

Table 1:
Overview of results

DLG Quality profil: Individual criteria slip resistance	Evaluation*
good slip resistance on dry and wet mat surface, $\mu > 0.45$	\checkmark

 ^{*} Evaluation range: requirement fulfilled (√) / requirement not fulfilled (X)

The Product

Applicant

DeLaval International AB site Glinde, P.O. Box 1136, DE-21509 Glinde/Germany

Product:

DeLaval rubber mat RM 32

Contact:

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Description and Technical Data

The DeLaval rubber mat RM 32 tested here, is an elastic floor covering for the resting area in cubicle houses.

Black, profiled rubber mat

- ca. 33 mm tick
- Surface with a triangle structure
- Underside with small and great conical knops (ca. 11.5 mm and 19 mm high, diameter at the bottom ca. 19 mm)
- Single mat installation
- Shore A: ca. 75

The Method

Slip resistance

The measurements were carried out with the ComfortControl test rig of the DLG test centre. A loaded (10 kg) round plastic foot (105 mm diameter, with a contact area of 75 cm², 3 mm wide ring at the periphery of the ground) was pulled with a velocity of 20 mm/s across the mat.

Detailed account of the test results

Slip Resistance

The slide pulling tests showed a good slip resistance on the dry or wet rubber mat surface in new condition. The measured friction coefficients (μ) all surpassed the minimal value of $\mu=0.40$ (DIN 3763) and $\mu=0.45$ (DLG test program) which speaks for a good foothold. [2]

Evaluation:

Good slip resistance on dry and wet rubber mat surface requirements fulfilled.



Figure 2: Slip resistance measurement

Summary

Based on test-stand investigations, the criteria tested in this DLG Approved Test evaluate slip resistance of the DeLaval rubber mat RM 32 for use in the resting area of high cubicles in cubicle houses. The tested rubber mat RM 32 met the requirements of the Testing Framework and DIN 3763 with respect to the investigated criteria. [3]

Further information

Testing agency

DLG TestService GmbH, Gross-Umstadt location, Germany

The tests are conducted on behalf of DLG e.V.

DLG test framework

DLG Testing Framework for elastic stable flooring, as of December 2018 DIN 3763:2022-08 (Elastic floorings for cattle and dairy cows walking and rest surfaces – Requirements and Testing) [4]

[4] Update DLG Framework and addition DIN 3763

Department

Indoor operations

Division head

Dr. Michael Eise

Test engineer(s)

Dr. Harald Reubold*

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As one of the leading organisations in the agricultural and food market, DLG organises international trade fairs and events in the specialist areas of crop production, animal husbandry, machinery and equipment for farming and forestry work as well as energy supply and food technology. DLG's quality tests for food, agricultural equipment and farm inputs are highly acclaimed around the world.

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Internal test code DLG: 2008-0052

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DLG e.V.

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