

CORK ROLLS WITH MICROBAN® ANTIBACTERIAL PROTECTION TECHNICAL SPECIFICATION

version: 2010.01 | date: 14-04-2010
subject to errors or modifications



CORK ROLLS WITH MICROBAN® ANTIBACTERIAL PROTECTION

GRANORTE's cork underlay is a cost effective solution for reducing airborne and impact noise problems.

Due to the unique 40 million cells per cubic centimetre honeycomb structure of cork and the special nature of the resin binder, it performs outstandingly under floating and laminated floors, wooden floors, ceramic tiles, natural stone, linoleum and vinyl floors.

During the cork agglomeration process an antibacterial additive (Microban®) is added to deliver continuous antibacterial and antifungal protection.

Cork underlay can be used in domestic and commercial applications and contribute significantly to the acoustic performance of floors improving environmental comfort.

Advantages of Cork Underlay with Microban®

- Enhanced built-in lifetime antibacterial protection;
- Safe and easy to handle and install;
- Effective reduction of impact and airborne sound;
- Increases the thermal comfort of the surface floor;
- Persistence of characteristics along time (lifetime);
- High fire resistance, without the release of toxic gases;
- Odourless;
- No harmful chemicals;
- Meets "Green" building requirements;
- Contains 90% (by weight) of post-industrial recycled content;
- Natural product, recyclable.

References

This specification applies to all GRANORTE references of cork rolls with Microban® for underlayment purposes:

- GN-RM2040M180
- GN-RM2040M200
- GN-RM0520M180
- GN-RM0520M200
- GN-RM1020B180
- GN-RM1020B200

Definition

Agglomerated cork made of cork granules of specified dimensions with the addition of a binder. During the cork agglomeration process an antibacterial additive (Microban®) is added to deliver embedded continuous antibacterial and antifungal protection.

Produced in cork cylinders with maximum dimensions of 950 mm (diameter) x 1270 mm (height).

Materials

- Granulated cork.
- Polyurethane cork binder.
- Microban® additive.

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Product Requirements

Reference	Granules dimension / density	Density ⁽¹⁾
	mm / Kg/m ³	EN 672 Kg/m ³
GN-RM2040M180	2,0-4,0 / 70-80	190
GN-RM2040M200	2,0-4,0 / 70-80	210
GN-RM0520M180	0,5-2,0 / 70-80	190
GN-RM0520M200	0,5-2,0 / 70-80	210
GN-RM1020B180	1,0-2,0 / 45-55	190
GN-RM1020B200	1,0-2,0 / 45-55	210

(1) Average density is not less than the nominal. Individual values are not below 95% the nominal.


Specification Requirements

Characteristic		Requirement	Test method
Roll Length		Nominal ± 1%	EN 426
Roll Width		Nominal ± 0,5%	EN 426
Overall thickness		Nominal ± 0,15 mm	EN 428
Density		Nominal ± 5%	EN 672
Mass per unit area		Nominal ± 10%	EN 430
Flexibility		PASS	EN 435 / A
Tensile strength			
Direction perpendicular to compression		≥ 350 kPa	ISO 7322
Direction to compression		≥ 250 kPa	



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Specification Requirements (cont.)

Characteristic	Requirement	Test method
Moisture content	≤ 8 %	EN 12105
Impact noise reduction Average value 	DLw (chapter 5 EN ISO 717-2) 2.0 mm thickness - 18 dB 4.0 mm thickness - 19 dB	ISO 717-2

Additional Properties

Characteristic	Requirement	Test method
Thermal Conductivity Thermal Resistance 	Conductivity 0,04 W / (m.K) Resistance Thickness 2 mm - 0,050 m ² .K/W 3 mm - 0,075 m ² .K/W 4 mm - 0,100 m ² .K/W 6 mm - 0,150 m ² .K/W 8 mm - 0,200 m ² .K/W	EN 12664
Compression	≤ 35 %	ISO 7322
Recuperation	≥ 75 %	ISO 7322
Resistance to boiling water	Does not disintegrate	ISO 7322
Durability	Lifetime	
Reaction to Fire 	Cork underlayment is a fire inhibitor which neither spreads flame nor releases toxic gases on combustion. Floor coverings test method: Radiant panel (EN 9239-1) Class C _{fl}	EN 13501-1



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Dimensions

Cork rolls are can be delivered in rolls of any thickness (> 1 mm), width (< 1.245 m) and length.

Standard dimensions of rolls are:

Thickness: 2; 3; 4; 5; 6 mm.

Width: 0.5; 0.6; 0.915; 1; 1.2; 1.245 m.

Packing

Composition cork rolls shall be dispatched in packages that provide suitable protection, and which are sufficiently watertight to keep the moisture content of the cork as specified under normal storage conditions.

Packages shall be marked with identifying information by a label and/or inkjet printing.

Packages shall be stored shielded from direct sunlight and humidity.

Typical uses

Due to the low thermal conductivity levels and effective sound insulation of cork, cork rolls are commonly used as a backing material for floating floors or as an underlay for any kind of floor covering.

Cork rolls are a cost effective solution for reducing impact noise problems. Due to the unique 40 million cells per cubic centimetre honeycomb structure of cork and the special nature of the resin binder, it performs outstandingly under floating and laminated floors, wooden floors, ceramic tiles, natural stone, linoleum and vinyl floors.

Technical agglomerated cork can be used in domestic and commercial applications like:

The use of cork rolls contributes significantly to the acoustic and thermal performance of buildings, improving environmental comfort and reducing energy costs.

Compliance with the building regulations

The sound insulation of floors is a necessary requirement of the Building Regulations. When used with appropriate structural floor and ceiling constructions, cork underlay can meet the performance requirements for sound insulation of most of the National Building Regulations.

Test results show that the use of cork underlay can improve the weighted normalized impact sound pressure level ($L'_{n,w}$) up to 18 dB for ceramic tiles, 23 dB for thick wood parquet, 25 dB for thin wood parquet and 25 dB for linoleum. The tested floors with the cork underlay achieve a DL_w (chapter 5 EN ISO 717-2) up to 19 dB.

Normative references

EN 12103	Resilient floor coverings – Agglomerated cork underlays. Specification
EN 426	Resilient floor coverings – Determination of the width, length, flatness and straightness of sheet material.
EN 428	Resilient floor coverings – Determination of the overall thickness
EN 430	Resilient floor coverings – Determination of mass per unit area.
EN 435	Resilient floor coverings – Determination of flexibility
EN 672	Resilient floor coverings – Determination of apparent density of agglomerated cork
EN 12105	Resilient floor coverings – Determination of moisture content of agglomerated cork
EN 12664	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods.
EN ISO 717-2	Acoustics – Rating of sound insulation in buildings and of building elements – Part 2: Impact sound insulation.
ISO 7322	Cork – Composition cork – Test methods

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FSC Certification

Agglomerated cork rolls are certified FSC Controlled Wood – SA-CW-002408.

Supplementary information

Additional technical information or can be obtained at our Service & Support page on our website at www.granorte.pt.



To offer the consumer unmistakable guarantees about the quality and origin of this cork product, it holds the *Cork Mark*.



Product made on a production line certified ISO 9001.



Microban is built-in during the cork agglomeration process, delivering continuous antifungal protection that will last the useful life of the underlay.

Independent testing on the Granorte product has found that the Microban technology reduces bacterial growth by up to 99.9%