Technical Information

Neopolen P® 9270

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Previous version:3.0
Product: **NEOPOLEN P 9270**

Product

Expanded, predominantly closed-cell foam particles made of polypropylene (EPP).

Table 1 :

Bulk density[1)] [kg/m³]	Medium particle size [mm]	Medium Particle Weight [mg]	Color[2)]
63 - 77	1.5 – 3.0	1.0 – 1.4	Black

[1)] Determined according to DIN EN ISO 60
[2)] Color differences may occur

Delivery, conveying, storage

Neopolen P 9270 is delivered in bulk by truck. Packaged delivery in Big Bags by truck is possible.

Unloading and conveying must be carried out with the technical equipment suitable for EPP particles.

Neopolen P 9270 must be protected against weather conditions (rain, snow, frost, sun) and excessive mechanical stress.

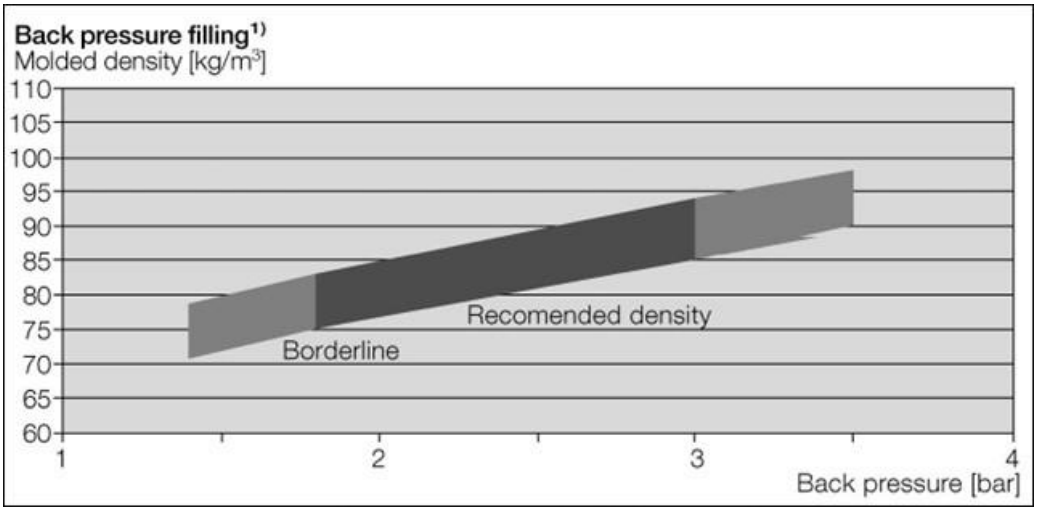
The usual regulations for the storage of flammable substances must be observed, i.e. open flames, welding sparks, electrical sparks and other ignition sources must be kept away. Smoking ban must be observed.

Processing

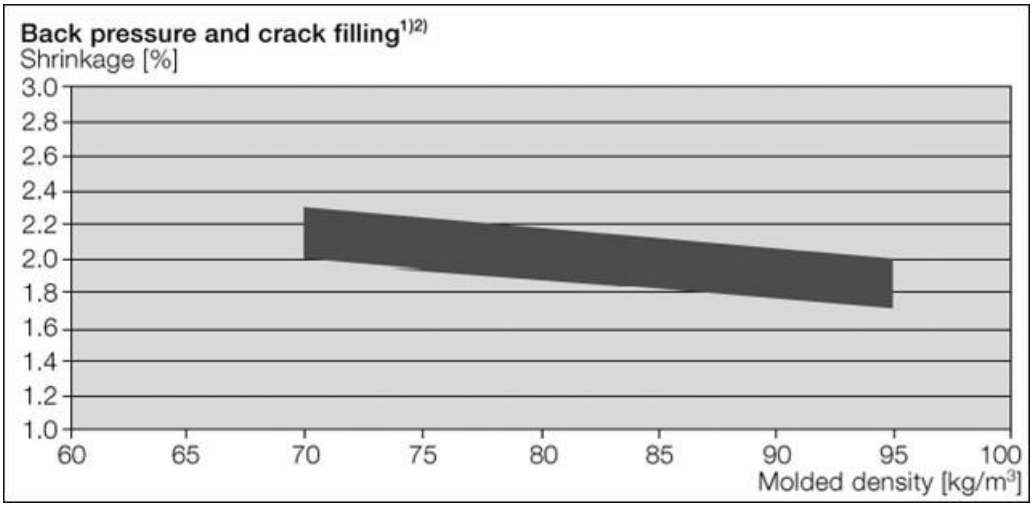
Neopolen P 9270 is processed on commercially available EPP molding machines, which are designed for a vapor chamber pressure of at least 5 bar. During processing, the vapor pressures are usually in the range of 1.5 – 4.0 bar, depending on the molded part geometry and molded part density.

It is normally processed by the "Back pressure technology". In principle "Crack filling" is also possible. Using a compression rate of 2, and depending on fill pressure, a molded density of 95 kg/m³ is achievable.

After pre-pressurization (2.5 bar, 8 h, RT and processing at 1.5 bar) a minimum density of 75 kg/m³ can be molded in which case shrinkage is an acceptable 2.3 %.



1) The processing behaviour was determined on moulded parts measuring 300 x 200 x 60 mm, which were produced under standard conditions at a vapour deposition pressure of 3.2 to 3.6 bar. The specifications refer to medium bulk densities



2) Shrinkage after tempering (80 °C)

Properties

In order to measure the physical properties, parts with dimensions 300 x 200 x 60 mm and 700 x 530 x 30 mm were molded on typical machines for the EPP industry under standard conditions. The values as shown in graphs and in Table 2. can vary depending on part geometry and processing parameters.

Table 2 : Physical properties of moldings made from Neopolen P 9270 (guideline values)

Property	**Test method**	**Unit**	**Material density (MD) as ISO 845 [kg/m³] (Core density)**				
			70	80	90	100	110
Tensile strength	DIN EN ISO 1798	[kPa]	1020	1150	1280	1410	1530
Compressive stress	according to DIN EN ISO 844						
At 10% strain		[kPa]	390	480	580	680	790
At 25% strain			460	550	650	750	860
At 50% strain			670	810	950	1100	1260
Compression set (50%, 22h, 23°C) 24h after stress release	DIN EN ISO 1856 (Method C)	[%]	25	25	25	25	25
Dimensional stability at heat (Linear size alteration after 4 d, 110°C)	according to DIN ISO 2796	[%]	<2	<2	<2	<2	<2
Thermal conductivity	DIN 52612	[$W.m^{-1}.K^{-1}$]	0.041	0.043	0.045	0.046	0.046
Water absorption (1 day)	according to DIN 53428	[Vol.-%]	<1	<1	<1	<1	<1
Flammability Sample thickness: 13mm	FMVSS 302		← fulfilled at MD 30 [kg/m3] →				

Further Technical Information

Detailed technical information concerning
- Delivery, conveying, storage
- Processing
- Physical and chemical properties
- Safety and environment

are available from:

Neopolen®, High-quality expandable polypropylene (EPP)

Product Safety and Environment	Neopolen P 9270 is produced without the use of halogenated hydrocarbons or compounds containing heavy metals. It contains no materials that require declaration under the GADSL (Global Automotive Declarable Substance List, Version 3,0, www.gadsl.org). At the time of delivery, the product contains no blowing agent and is not classified under the dangerous goods regulations. Neopolen P 9270 presents no danger to water. (AwSV Germany 01.08.2017, App. 1) Neopolen P 9270 is recyclable. When using this product, the information and advice given in our **Safety Data Sheet** should be observed. Necessary attention should also be given to the **precautions** necessary for handling chemicals.
Note	The information in this publication is based on our current knowledge and experience. They do not exempt the processor from his own tests and tests due to the abundance of possible influences in the processing and application of our products. A guarantee of certain properties or suitability for a specific purpose cannot be derived from our information. All descriptions, drawings, photographs, data, ratios, weights, etc. contained herein are subject to change without notice and do not represent the contractually agreed quality of the product. Any intellectual property rights as well as existing laws and regulations must be observed by the recipient of our product on his or her own responsibility.

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