

PRODUCT DATA SHEET

01.03.2016 Ed.4

Plastomer/Elastomer **Queo™ 1001**

Description

Queo 1001 is an ethylene based octene-1 plastomer, produced in a solution polymerisation process using a metallocene catalyst.

CAS-No. 26221-73-8

Applications

Queo 1001 Demonstrated applications include:

Seal layers in lamination and flexible barrier films
High strength flexible films
Flexible low voltage insulation

Blow moulding
Soft foams, e.g. artificial wine corks
Flexible automotive boots and bellows

Additives

Queo 1001 contains processing stabilizers

Special Features

Queo 1001 is optimised to deliver:

Versatile blending with other polyolefins in film, extrusion and moulding applications.
Unrivalled sealing and hot tack properties at low temperature
Outstanding toughness

Outstanding puncture resistance
Low temperature impact strength
High flexibility and surface softness
High clarity
Excellent environmental stress cracking resistance (ESCR)

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (23 °C)	910 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	1,1 dg/min	ISO 1133
Flexural Modulus ¹	132 MPa	ISO 178
Tensile Modulus	90 MPa	ASTM D 882-A
Tensile Strength ¹	35 MPa	ISO 527-2
Elongation at Break ¹	750 %	ISO 527-2
Melting temperature (DSC)	106 °C	ISO 11357-3
Seal Initiation Temperature	87 °C	ASTM F88
Vicat softening temperature (10 N)	93 °C	ISO 306
Brittleness temperature	< -90 °C	ASTM D 746
Environmental Stress Crack Resistance () ¹	> 1.000 hrs	ASTM D 1693-B
Izod Impact Strength, notched (23 °C) ¹	No break	ISO 180/1A
Hardness, Shore D	49	ISO 868

¹ Measured on moulded plaques.

Queo is a trademark of the Borealis group.

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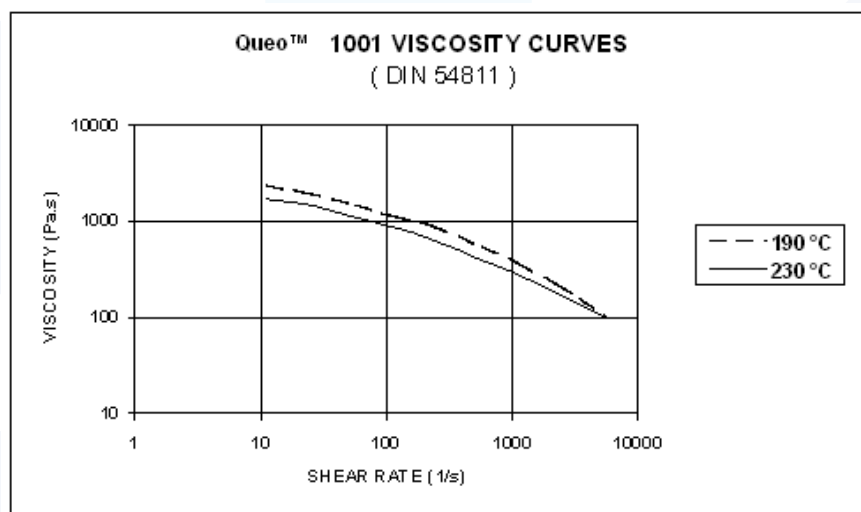
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Film Properties

Property	Typical Value	Test Method
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Dart Drop ¹	> 22 g/μm	ASTM D1709
Puncture resistance	2800 mJ/mm	Borealis Method
Haze	2 %	ASTM D 1003
Gloss (45 °C)	81	ASTM D 2457

¹ Blown film Monsanto dart


Storage

Queo 1001 This polymer, like most polymers, is combustible so the usual precautions concerning ignition sources should be taken in warehouses and storage rooms. Where large quantities are kept in store, it is necessary to observe the normal rules for orderly stock control and it is recommended to use the first in – first out (FIFO) principle for stock planning. The products should be stored in a dry and clean facility to prevent contamination and not be exposed to direct sunlight as this may lead to quality deterioration. These materials have a shelf life of at least 3 (three) years after date of production, provided the material remains in its original unopened packaging and are stored under the storage conditions as described in this document. “Shelf life” means that there will not be any substantial difference compared to the agreed specification. The date of batch creation can be derived from the batch code printed on the bags representing. YYMMDDHLL (LL being two letters with no reference to the production time). Borealis Plastomers generally does not sell prime material older than 2 (two) years unannounced.

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Related Documents

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"
Statement on chemicals, regulations and standards
General statement on compliance to food contact regulations
Statement on polymer additives and BSE

Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

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