April 2013

Product Data Sheet

Polypropylene

HD821CF

DESCRIPTION

HD821CF is a Homopolymer grade produced by the proprietary **Borstar®** process**,** suitable for the manufacturing of unoriented films on chill roll process.

HD821CF contains both slip and antiblock additives.

APPLICATIONS

Lamination film	Stationary film
Food packaging film	Textile packaging film
Multilayer Co extrusion film	

SPECIAL FEATURES

Good Optics (Low Haze, high gloss)	Good mechanical properties
Excellent processability	Heat Sterilisable
Excellent gauge control	

PHYSICAL PROPERTIES

Property	Typical Value	Unit	Test Method
Density	900 - 910	Kg/m³	ASTM D 4883
Melt Flow Rate MFR (230 °C/2.16 kg)	8.0	g/10min	ASTM D1238
Flexural Modulus[1]	1500	MPa	ISO 178
Melting Temperature (DSC)	160 - 164	Deg C	ISO 3146
Vicat softening temperature A50, (10 N) [1]	152	Deg C	ISO 306

*Data should not be used for specification work

[1] Measured on injection moulded specimens, conditioned at 23°C and 50% relative humidity

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FLIM PROPERTIES

Property		Typical Value	Unit	Test Method
Instrumented Puncture test				
Total penetration energy		16	J / mm	ISO 7765-2
Force		1150	N / mm	ISO 7765-2
Haze		<2.5	%	ASTM D1003
Gloss (20 °C) at 20 degree (of arc)		>120		ASTM D 2457
Tensile Strain at Break	MD/TD	500 - 700	%	ISO 527-3
Tensile Strength	MD	30 - 50	MPa	ISO 527
Tensile Strength	TD	25 -45	MPa	ISO 527
Tensile Modulus	MD/TD	700 - 850	MPa	ISO 527

Specific film values evaluated on blown films produced with Borouge internal standard conditions with a thickness of 50 µm. When compared to films which were produced under other conditions it should be taken into account that the film properties are strongly dependent on the processing conditions.

PROCESSING GUIDELINES

The actual conditions will depend on the type of equipment used.

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borouge representative for such particulars

FOOD CONTACT REGULATIONS

HD821CF fulfils the food contact regulations in most countries. For specific information and compliance statement please contact your Borouge representative.

STORAGE

The product should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

More information on storage can be found in Safety Information Sheet for this product.

SAFETY

The product is not classified as a hazardous mixture.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

A Safety Information Sheet is available on request. Please contact your Borouge representative for more details on various aspects of safety, recovery and disposal of the product.

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RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

RELATED DOCUMENTS

Most datasheets and statements are available on Borouge website www.borouge.com. If more information is required, please contact a Borouge representative for information.

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.

Borouge 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 Borouge products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

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