

## 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  
Textile packaging

Multilayer co-extrusion film

Food packaging  
Stationery folders

### SPECIAL FEATURES

Good optics (low haze and high gloss)  
Heat sterilisable  
Excellent gauge control

Good mechanical properties  
Excellent processability

### PHYSICAL PROPERTIES

Property	Typical Value	Test Method
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Density	900-910 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (230 °C/2.16 kg)	8 g/10min	ISO 1133
Flexural Modulus <sup>1</sup>	1500 MPa	ISO 178
Melting Temperature (DSC)	160 - 164°C	ISO 3146
Vicat softening temperature A50, (10 N) <sup>1</sup>	152 °C	ISO 306

<sup>1</sup> Measured on injection moulded specimens, conditioned at 23°C and 50% relative humidity

### 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.

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## FILM PROPERTIES <sup>1</sup>

Property		Typical Value	Test Method
Data should not be used for specification work			
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Instrumented Puncture test			
Total penetration energy		16 J/mm	ISO 7765-2
Force		1150 N/mm	ISO 7765-2
Haze		<2.5 %	ASTM D 1003
Gloss 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 527-3
Tensile Strength	TD	25-45 MPa	ISO 527-3
Tensile Modulus	MD/TD	700 – 850 MPa	ISO 527-3

<sup>1</sup> Specific film values evaluated on chill roll films produced with Borouge internal standard conditions with a thickness of 50 µm. When compared to films which are produced under other conditions, it should be taken into account that the film properties are strongly dependent on the processing conditions.

## STORAGE

**HD821CF** 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.

Please see our Safety Data Sheet / Safety Information Sheet for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borouge representative.

## 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.



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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 Information Sheet  
Statement on chemicals, regulations and standards  
Statement on compliance to food contact regulations

### 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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