# Polypropylene
# HF700SA

Polypropylene Homopolymer

## Description

**HF700SA** is a polypropylene homopolymer intended for injection moulding.

This material has excellent balanced mechanical properties and is easy to process.

## Applications

**HF700SA** has been developed especially for applications like:

Household applications

## Special features

High heat stabilised
UL registered under File E108112
Shows excellent antistatic performance
Excellent flowability

## Physical Properties

| Property | Typical Value<br>Data should not be used for specification work | Test Method |
|---|---|---|
| Density | 905 kg/m3 | ISO 1183 |
| Bulk density | 500 - 600 kg/m3 | |
| Melt Flow Rate (230 °C/2,16 kg) | 21 g/10min | ISO 1133 |
| Tensile Modulus (1 mm/min) | 1.500 MPa | ISO 527-2 |
| Tensile Strain at Yield (50 mm/min) | 8 % | ISO 527-2 |
| Tensile Stress at Yield (50 mm/min) | 34 MPa | ISO 527-2 |
| Heat Deflection Temperature A (1,80 MPa) | 53 °C | ISO 75-2 |
| Heat Deflection Temperature B (0,45 MPa) | 94 °C | ISO 75-2 |
| Vicat softening temperature (10 N) | 153 °C | ISO 306 |
| Vicat softening temperature (50 N) | 90 °C | ISO 306 |
| Charpy Impact Strength, notched (23 °C) | 3,5 kJ/m² | ISO 179/1eA |
| Charpy Impact Strength, unnotched (23 °C) | 80 kJ/m² | ISO 179/1eU |
| Charpy Impact Strength, unnotched (-20 °C) | 15 kJ/m² | ISO 179/1eU |
| Hardness, Ball Indentation 358 N/30 s | 70 MPa | ISO 2039 |
| Hardness, Rockwell (R-scale) | 102 | ISO 2039-2 |

Values determined on standard injection moulded specimens conditioned at 23°C and 50% relative humidity after at least 96 hours storage time.

Borealis AG | Wagramerstrasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

# Polypropylene
# HF700SA

## Application Related Tests

| Property | Typical Value<br>Data should not be used for specification work | Test Method |
|---|---|---|
| Flammability at thickness 0,8 - 3 mm | HB | UL 94 |
| Ball Pressure test at thickness 2 mm | 125 °C | EN 60695-10-2 |
| Relative Temperature Index at (Thickness) | | |
| Electric | 120 °C | UL 746B |
| Mechanical with impact | 120 °C | UL 746B |
| Mechanical without impact | 120 °C | UL 746B |
| Gloss on 2 mm plaque [1] | 70 % | DIN 67530 |
| Mould average Shrinkage [2] | 1,5 % | Borealis Method |

[1] at 20 degree (of arc)
[2] VALUES MAY ONLY BE USED AS INDICATION, AND SHOULD NOT BE USED DIRECTLY IN MOULD DESIGN WITHOUT PRIOR VALIDATION

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

### Injection Moulding
This product is easy to process with standard injection moulding machines. Following parameters should be used as guidelines:

| | |
|---|---|
| Feeding temperature | 40 - 80 °C |
| Mass temperature | 220 - 260 °C |
| Back pressure | Low to medium |
| Holding pressure | 30 - 60 MPa |
| Mould temperature | 30 - 50 °C |
| Screw speed | Low to medium |
| Flow front speed | 100 - 200 mm/s |

## Storage
**HF700SA** 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.

## Safety
The product is not classified as a dangerous preparation.

Please see our Safety Data Sheet for details on various aspects of safety of the product, for more information contact your Borealis representative.

Borealis AG | Wagramerstrasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

# Polypropylene
# HF700SA

## 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.

Please see our Safety Data Sheet for details on various aspects of recovery and disposal of the product.

**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 Borealis' 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.

Borealis AG | Wagramerstrasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com