

Solutions for Moulding Applications



 **BOREALIS**

بروج
Borouge 

SHAPING *the* FUTURE *with* PLASTICS

Borealis and Borouge are leading providers of innovative, value creating plastics solutions. With more than 40 years of experience in polyolefins and using our unique Borstar® technology, we focus on the infrastructure, automotive and advanced packaging markets across Europe, the Middle East and Asia. Our production facilities, innovation centres and service centres work with customers in more than 170 countries to provide materials that make an essential contribution to society and sustainable development. We are committed to the principles of Responsible Care® and to leading the way in 'Shaping the Future with Plastics'™.



Contents

Injection moulding

- 04 Injection moulding
- 08 Thin wall packaging
- 10 Transport packaging
- 12 Caps and closures

Blow moulding

- 14 Bottles, containers and sheet

Rotational moulding

- 18 Rotational moulding

Healthcare

- 20 Healthcare

General

- 22 Facts
- 23 Borealis and Borouge Moulding

Injection moulding

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C/-20°C [kJ/m ²] | Key properties |
|--|------------------------------------|---|--|--------------------------|
| PP homopolymers | | | | |
| HD120MO | 8 | 1,500 | 4.0 | |
| HE125MO | 12 | 1,550 | 3.5 | |
| HF136MO | 20 | 1,500 | 3.5 | CR |
| Bormod™ HF955MO | 20 | 2,200 | 2.5 | BNT |
| HG385MO | 25 | 1,750 | 3.5 | CR, BNT, AS, SA |
| HG313MO | 30 | 1,500 | 2.5 | CR, AS, NU, SA |
| HH315MO | 35 | 1,650 | 2.5 | CR, AS, NU, SA |
| HJ325MO | 50 | 1,650 | 2.0 | CR, AS, NU |
| PP heterophasic copolymers (block copolymers) | | | | |
| BC545MO | 3.5 | 1,250 | 15.0/6.0 | NU |
| BC245MO | 3.5 | 1,350 | 15PB/6.5 | NU |
| BC250MO | 4 | 1,200 | 25PB/7.5 | NU |
| BC650MO | 4 | 1,200 | 25PB/7.5 | UV-stabilised BC250MO |
| BC142MO | 5 | 1,150 | 9.0/4.0 | CR |
| BD310MO | 8 | 1,400 | 9.0/4.5 | AS, NU |
| BD950MO | 7 | 1,400 | 8.5/4.5 | BNT, AS, SA |
| Bormod™ BE961MO | 12 | 1,200 | 14.0/7.0 | BNT |
| BE170MO | 13 | 1,250 | 8.0/4.0 | |
| BE375MO | 13 | 1,400 | 8.0/4.0 | High AS, NU |
| BF330MO | 18 | 1,300 | 7.0/4.0 | CR, AS, NU |
| Bormod™ BF970MO | 20 | 1,500 | 9.0/5.5 | BNT, AS |
| BG373MO | 30 | 1,550 | 7.5/4.0 | High AS, NU |
| BH345MO | 45 | 1,400 | 6.0/4.0 | AS, NU |
| Bormod™ BH374MO | 45 | 1,500 | 6.5/4.0 | High AS, NU |
| BH980MO | 45 | 1,750 | 4.0/2.5 | NU, SA |
| Bormod™ BH348MO | 50 | 1,050 | 8.0/6.0 | BNT, AS, CR |
| BJ360MO | 60 | 1,400 | 6.0/4.0 | AS, NU |
| Bormod™ BJ368MO | 70 | 1,450 | 5.5/4.0 | BNT, AS |
| BJ380MO | 80 | 1,300 | 5.0/4.0 | CR, AS, NU |
| BJ356MO | 100 | 1,600 | 4.5/2.5 | AS, NU |
| PP random copolymers | | | | |
| RD360MO | 8 | 1,250 | 6.5 | AS, NU |
| RE420MO | 13 | 1,100 | 7.0 | NU |
| RE435MO | 13 | 850 | 9.0 | CR, NU |
| RE450MO | 13 | 1,000 | 8.0 | AS, NU |
| RF365MO | 20 | 1,150 | 6.0 | AS, NU |
| RG460MO | 30 | 1,050 | 6.0 | CR, AS, NU |
| RJ370MO | 45 | 1,050 | 5.0 | CR, AS, NU |
| RJ470MO | 70 | 1,200 | 5.0 | CR, AS, NU |
| PP random/heterophasic copolymers | | | | |
| Borpact™ SG910MO | 25 | 950 | 8.0 | CR, NU |
| Borpact™ SG930MO | 25 | 850 | 11.0/3.0 | AS, NU |

Applications/properties

Containers, houseware.

Houseware, packaging, closures, technical parts.

Packaging, houseware, small containers.

Houseware, cosmetic packaging, brushes, garden furniture, fast cycle.

Caps and closures, packaging, houseware, fast cycle.

Caps and closures, fast cycle.

Thin wall packaging, caps and closures, fast cycle.

Thin wall packaging, fast cycle.

Battery cases, transport packaging, luggage, low blush, high stiffness/impact, high heat stability.

Crates, boxes, luggage, technical parts, high stiffness, high impact.

Pallets, crates, boxes, luggage, technical parts, very high impact.

Pallets, crates, boxes, technical parts, very high impact.

Crates, boxes, technical parts, high impact.

Packaging, houseware, technical parts, crates.

Caps and closures, low stress whitening.

Trays, boxes, pails, very high impact, fast cycle, creep resistant.

Packaging, pails, houseware, high impact.

Pails, thin wall packaging, fast cycle.

Thin wall packaging, houseware, fast cycle.

Trays, boxes, crates, very high impact.

Pails, thin wall packaging, fast cycle, very high stiffness.

Thin wall packaging, houseware, fast cycle.

Pails, thin wall packaging, fast cycle, very high stiffness.

Thin wall packaging, houseware, fast cycle, high gloss.

Deep freezer packaging, lids, very high impact.

Thin wall packaging, houseware, fast cycle, high impact.

Thin wall packaging, houseware, fast cycle time, high impact.

Thin wall packaging, houseware, fast cycle.

Thin wall packaging, yoghurt pots, very high stiffness, fast cycle.

Houseware, very high clarity, good impact.

Houseware, lids, packaging, high impact and clarity.

Houseware, thin wall packaging, closures, very high clarity.

Caps and closures for water, excellent organoleptic properties.

Houseware, thin wall packaging, very high clarity, good impact.

Thin wall packaging, houseware, very high clarity, fast cycle.

Thin wall packaging, houseware, very high clarity, fast cycle.

Thin wall packaging, houseware, very high clarity, fast cycle.

Houseware, thin wall packaging, high impact and clarity.

Thin wall packaging, houseware, very high clarity and impact.

Injection moulding

| Product name | MFR 190°C/2.16 kg [g/10 min] | Density [kg/m ³] | Tensile modulus 1 mm/min [MPa] | Charpy impact Strength, notched 23°C/-20°C [kJ/m ²] |
|------------------------|------------------------------------|---------------------------------|--------------------------------------|--|
| HDPE & LDPE | | | | |
| MG7547 | 4 | 954 | 950 | 11.0/7.0 |
| MG9641 | 8 | 964 | 1,200 | 7.0/6.0 |
| MG9647 | 8 | 964 | 1,200 | 7.0/6.0 |
| MG9621 | 12 | 962 | 1,150 | 4.0/4.0 |
| MG9601 | 31 | 960 | 1,050 | 3.0/3.0 |

| Key Properties | Applications/properties |
|----------------|---|
| UV | Very high impact and good flow for waste bins, fish crates, boxes. |
| | Crates, pails, houseware, high stiffness, good impact, low warpage. |
| UV | Crates, pails, houseware, high stiffness, good impact, low warpage. |
| | Crates, pails, houseware, high stiffness, good impact, low warpage. |
| | Thin walled applications, caps and closures, toys, houseware. |

Thin wall packaging

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C/-20°C [kJ/m ²] | Key properties |
|---|------------------------------------|---|--|----------------|
| Homopolymers | | | | |
| Bormod™ HF955MO | 20 | 2,200 | 2.5 | BNT |
| HH315MO | 35 | 1,650 | 2.5 | CR, AS, NU, SA |
| HJ325MO | 50 | 1,650 | 2.0 | CR, AS, NU |
| Heterophasic copolymers (block copolymers) | | | | |
| BE375MO | 13 | 1,400 | 8.0/4.0 | High AS, NU |
| BF330MO | 18 | 1,300 | 7.0/4.0 | CR, AS, NU |
| Bormod™ BF970MO | 20 | 1,500 | 9.0/5.5 | BNT, AS |
| BG373MO | 30 | 1,550 | 7.5/4.0 | High AS, NU |
| BH345MO | 45 | 1,400 | 6.0/4.0 | AS, NU |
| Bormod™ BH374MO | 45 | 1,500 | 6.5/4.0 | High AS, NU |
| BH980MO | 45 | 1,750 | 4.0/2.5 | NU, SA |
| Bormod™ BH348MO | 50 | 1,050 | 11.0/6.0 | BNT, AS, CR |
| BJ360MO | 60 | 1,400 | 6.0/4.0 | AS, NU |
| Bormod™ BJ368MO | 70 | 1,450 | 5.5/4.0 | BNT, AS |
| BJ380MO | 80 | 1,300 | 5.0/4.0 | CR, AS, NU |
| BJ356MO | 100 | 1,600 | 4.5/2.5 | AS, NU |
| Random copolymers | | | | |
| RE435MO | 13 | 850 | 9.0 | CR |
| RF365MO | 20 | 1,150 | 6.0 | AS, NU |
| RG460MO | 30 | 1,050 | 6.0 | CR, AS, NU |
| RJ370MO | 45 | 1,050 | 5.0 | CR, AS, NU |
| RJ470MO | 70 | 1,200 | 5.0 | CR, AS, NU |
| Random/heterophasic copolymers | | | | |
| Borpact™ SG910MO | 25 | 950 | 8.0 | CR, NU |
| Borpact™ SG930MO | 25 | 850 | 11.0/3.0 | AS, NU |

Applications/properties

Very high stiffness homopolymer for fast production. High temperature strength (HDT) is excellent.

High flow homopolymer with low warpage and demoulding.

High flow homopolymer with low warpage and demoulding.

High impact and stiffness designed for pails. Excellent demoulding and antistatic properties.

High impact and stiffness with low warpage.

Very fast solidification gives possibilities for very fast cycle.

High impact and stiffness.

Very fast cycle in combination with excellent drop and stacking properties.

High impact and stiffness in combination with good flow makes this grade perfect for ice cream packaging.

New generation PP copolymer with high flow suited for thin wall pails and in multi-cavity mould systems. Very fast cycle in combination with excellent drop and stacking properties.

Very high stiffness and stacking properties of this high gloss copolymer.

Fast cycle due to high stiffness and demoulding properties.

Design for very high impact applications like 2-5 L ice cream tubs.

Fast cycle time and low warpage. Excellent for pail lids.

Unique combination of mechanical properties and flow makes this grade perfect for packaging designs with challenging demands like ice cream packaging and speciality design packaging.

Fast cycle, PP with colors independent to shrinkage, unique combination of flow and impact for consumer packaging and houseware applications.

Low warpage and good mechanical properties makes this grade well suited for lids or packaging exposed to warpage. Fast cycle and good demoulding properties.

Very easy flowing copolymer which can be used for very thin wall articles or complicated designs. Perfect for many packaging projects where injection moulding and in-mould labelling is preferred in front of TF PP/PET/PE. Yoghurt pots, yellow fat, desserts, etc.

High impact random copolymer with low warpage and excellent transparency. Perfect for transparent lids.

Stiff random with excellent transparency and good antistatic properties.

High flow random copolymer with good impact, excellent transparency, low warpage and good antistatic properties.

Good flow and warpage makes this grade perfect for thin wall transparent packaging. Good antistatic properties.

Very high fluidity random copolymer for thin walled articles and complex geometries, very high clarity and good antistatic properties.

High impact and transparent PP. Suitable for pails, storage boxes or other articles where a transparent solution is preferred to a coloured PP copolymer.

Thin wall packaging, houseware, very high clarity and impact.

Deep freeze packaging like ice cream.

Transport packaging

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C/-20°C [kJ/m ²] | Key properties | |
|--|------------------------------------|---|--|----------------|--|
| PP heterophasic copolymers (block copolymers) | | | | | |
| BC245MO | 3.5 | 1,350 | 15PB/6.5 | NU | |
| BC545MO | 3.5 | 1,250 | 15.0/6.0 | NU | |
| BC250MO | 4 | 1,200 | 25PB/7.5 | NU | |
| BC650MO | 4 | 1,200 | 25PB/7.5 | NU, UV | |
| BC142MO | 5 | 1,150 | 9.0/4.0 | CR | |
| BD310MO | 8 | 1,400 | 9.0/4.5 | AS, NU | |
| Bormod™ BE961MO | 12 | 1,200 | 14.0/7.0 | BNT | |
| BE375MO | 13 | 1,400 | 8.0/4.0 | High AS, NU | |
| Bormod™ BF970MO | 20 | 1,500 | 9.0/5.5 | BNT, AS | |
| Borpact™ SG910MO | 25 | 950 | 8.0 | CR, NU | |
| BH345MO | 45 | 1,400 | 6.0/4.0 | AS, NU | |

| Product name | MFR 190°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C/-20°C [kJ/m ²] | Density [kg/m ³] | Key properties |
|--------------|------------------------------------|---|--|---------------------------------|-------------------|
| PE | | | | | |
| MG7547 | 4 | 950 | 11.0/7.0 | 954 | UV |
| MG9641 | 8 | 1,200 | 7.0/6.0 | 964 | |
| MG9647 | 8 | 1,200 | 7.0/6.0 | 964 | UV |
| MG9621 | 12 | 1,150 | 4.0/4.0 | 962 | |

Applications/properties

Crates, boxes, technical parts, high impact.

Battery cases, transport packaging, luggage, low blush, high stiffness/impact, high heat stability.

Crates, boxes, luggage, technical parts, very high impact, good creep resistance.

Pallets, crates, boxes, luggage, technical parts, very high impact.

Pallets, crates, boxes, technical parts, high impact.

Packaging, houseware, technical parts.

Trays, boxes, crates, very high impact, etc.

Trays, crates, boxes, pails, fast cycle.

Crates, trays, boxes, pails, fast cycle, very high stiffness.

High impact and transparent PP for pails, storage boxes and other articles where transparency is required.

Storage trays, houseware, fast cycle.

Applications/properties

Very high impact and good flow for waste-bins, fish-crates, boxes.

Crates, storage boxes, trays, trash containers, high stiffness, low warpage, good impact.

Crates, storage boxes, trays, trash containers, high stiffness, low warpage, good impact.

Crates, pails, houseware, high stiffness, good impact, low warpage.

Caps and closures

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C/-20°C [kJ/m ²] | Key properties |
|--|------------------------------------|---|--|-----------------|
| PP homopolymers | | | | |
| HB306MO | 2 | 1,900 | 7.0 | AS, BNT, SA |
| HE125MO | 12 | 1,550 | 3.5 | |
| Bormod™ HF955MO | 20 | 2,200 | 2.5 | BNT |
| HG385MO | 25 | 1,750 | 3.5 | BNT, AS, SA, CR |
| HG430MO | 25 | 1,400 | 3.5 | AS, NU, SA, CR |
| HG313MO | 30 | 1,500 | 2.5 | AS, NU, SA, CR |
| HH315MO | 35 | 1,600 | 2.5 | AS, NU, SA, CR |
| PP heterophasic copolymers (block copolymers) | | | | |
| BD310MO | 8 | 1,400 | 9.0/4.5 | AS, NU |
| BD950MO | 7 | 1,400 | 8.5/4.5 | BNT, AS, SA |
| Bormod™ BF970MO | 20 | 1,500 | 9.0/5.5 | BNT |
| BH980MO | 45 | 1,750 | 4.0/2.5 | NU, SA |
| PP random copolymers | | | | |
| RD360MO | 8 | 1,250 | 6.5 | AS, NU |
| RE420MO | 13 | 1,100 | 7.0 | AS, NU |
| RE450MO | 13 | 1,000 | 8.0 | AS, NU |
| RG460MO | 30 | 1,050 | 6.0 | CR, NU, AS |
| RF365MO | 20 | 1,150 | 6.0 | AS, NU |
| RJ370MO | 45 | 1,050 | 5.0 | CR, NU, AS |
| PP random/heterophasic copolymers | | | | |
| Borpact™ SG910MO | 25 | 950 | 8.0 | NU, CR |
| Borpact™ SG930MO | 25 | 850 | 11.0/3.0 | AS, NU |

| Product name | MFR 190°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Tensile impact strength notched [kJ/m ²] | Density [kg/m ³] | Remarks |
|--------------|------------------------------------|---|--|---------------------------------|-----------|
| HDPE | | | | | |
| MG7547 | 4 | 950 | 80 | 954 | |
| MG9601 | 31 | 1,050 | 50 | 960 | High flow |

Applications/properties

Low MFR for compression moulded closures, low opening torque.

Low opening torque. Indicated for wide-mouth jars.

Fast cycle, very high stiffness.

Very good stiffness/impact balance. Fast cycle without warpage.

Excellent dimensional consistency of coloured closures.

Homopolymer specially suited for closures with integrated hinge.

Easy flowing, for closures with integrated hinge, low warpage, fast cycle.

Easy flowing, for closures with long flow path and wide-mouth closures.

For closures requiring good impact resistance at low temperatures.

Good dimensional stability and low stress whitening.

High impact, very high stiffness.

Easy flowing block copolymer allowing fast cycle time with low stress whitening, high gloss and low friction due to the incorporated lubricant.

Excellent transparency, giving the closure a very good 'see through' aspect. The reduced stress whitening makes these grades very suitable for closures with integrated hinges.

Caps requiring very good organoleptics.

Excellent transparency, high flow, good anti-static properties. Very suitable for closures with integrated hinges.

Medium soft, no stress whitening, very good transparency, lids/closures.

High impact, no stress whitening, high transparency.

Applications/properties

UN-closures and other closures requiring good ESCR.

Very easy flowing material for closures with difficult flowpath and/or fast production rate.

Bottles, containers and sheet

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C [kJ/m ²] | Key properties |
|-----------------------------------|------------------------------------|---|--|----------------|
| PP heterophasic copolymers | | | | |
| BA202E | 0.3 | 1,300 | 32PB | |
| BHC5012 | 0.3 | 1,350 | 60PB | |
| BEC5012 | 0.3 | 1,300 | 60PB | |
| BA204E | 0.8 | 1,350 | 24PB | |
| BB125MO | 1.3 | 1,400 | 50PB | NU |
| Bormod™ BB127MO | 1.3 | 1,550 | 50PB | BNT |
| PP random copolymers | | | | |
| RB206MO | 1.9 | 1,150 | 7.0 | NU |
| RB307MO | 1.5 | 900 | 20PB | NU |
| RB607MO | 1.5 | 900 | 20PB | UV, NU |
| RF926MO | 20 | 1,150 | 6.0 | NU |
| PP HMS | | | | |
| Daploy™ WB130HMS | 2.5 | 1,950 | 3.5 | HMS |

Applications/properties

Technical BM, thick sheet. High heat stabilised.

Household and industrial containers, technical BM, sheet.
High heat stabilised.

Thick sheet. Very high heat stabilised.

Technical BM. High heat stabilised.

Household and industrial containers, corrugated board.

Household and industrial containers, corrugated board.

Mono- and multilayer bottles for food, cosmetics.
Excellent transparency, hot-fillable.

Household and industrial containers, ISBM, cosmetics.
Very high clarity, high impact.

Household and industrial containers, cosmetics, food.

Very high transparency, high stiffness, high gloss, high processability,
injection stretch blow moulding grade.

High melt strength PP additive for improved processing on big bottles
and foamed articles.

Bottles and containers

| Product name | MFR 190°C/2.16 kg [g/10 min] | MFR 190°C/21.6 kg [g/10 min] | Density [kg/m ³] | Tensile Modulus 1 mm/min [MPa] | ESCR Igepal 10 % ASTM 1693 [h] |
|---------------------|------------------------------------|------------------------------------|---------------------------------|---|---|
| HDPE | | | | | |
| BL0521 | | 2.5 | 952 | 1,100 | 300 |
| BL1481 | | 7 | 948 | 1,000 | 300 |
| BL2571 | 0.2 | 23 | 957 | 1,250 | 40 |
| BL2631 | 0.5 | 43 | 963 | 1,500 | 10 |
| HDPE Bimodal | | | | | |
| BS2581 | 0.3 | 28 | 958 | 1,300 | 100 |
| BS2541 | 0.3 | 28 | 954 | 1,100 | 500 |
| BS4641 | 0.7 | 60 | 965 | 1,550 | 15 |

| Key properties | Applications/properties |
|----------------|--|
| | Large/medium UN drums and UN canisters. |
| | Small/medium canisters. Open top UN drums. |
| | Small/medium canisters, small bottles, household industrial chemicals, bottles and food. |
| | Bottles for food, small bottles for fresh milk, juices. |
| Bimodal | Small/medium canisters. Small bottles, household industrial chemicals, bottles for food. |
| Bimodal | Small/medium UN-containers, small/medium canisters. Small bottles, household industrial chemicals, bottles for food. |
| Bimodal | Milk and dairy bottles, outstanding organoleptic and processability, cycle time reduction. |

Rotational moulding

| Product name Granules | Product name Powder | MFR 190°C/ 2.16 kg [g/10 min] | Density [kg/m ³]* | Tensile Modulus 1 mm/min [MPa] | Stress at Yield 50 mer/min [MPa] |
|--------------------------|------------------------|--|----------------------------------|---|---|
| Natural grades | | | | | |
| Borecene™ RM7402 | Borecene™ RM7403 | 4.0 | 940 | 700 | 20 |
| Borecene™ RM8342 | Borecene™ RM8343 | 6.0 | 934 | 650 | 18 |
| Black grades | | | | | |
| Borecene™ RM7404 | Borecene™ RM7405 | 4.0 | 940 | 700 | 20 |
| Borecene™ RM8344 | Borecene™ RM8345 | 6.0 | 934 | 650 | 18 |
| PP black | | | | | |
| | SE525MO | 13 | 905 | 1,100 | 20 |

* Base resin density

¹⁾ To maximise the application benefits of Borecene products in Rotational Moulding, utilise the recommended processing conditions stated in the Borecene Processing Guide.

²⁾ WRC/WRAS approved for contact with drinking water

³⁾ ARM at 0°C

| ARM Impact -40°C [J] | HDT [°C] | Applications ¹⁾ |
|-------------------------|-------------|---|
| 92 | 68 | Good flow combined with high stiffness. Thick wall applications, large containers and foamed articles ²⁾ . |
| 90 | 65 | Very good flow and mechanical properties. Technical and intricately shaped articles ²⁾ . |
| 92 | 68 | Black version of RM7402/RM7403. Underground and infrastructure applications ²⁾ . |
| 90 | 65 | Black version of RM8342/RM8443. Automotive and infrastructure applications ²⁾ . |
| 45 ³⁾ | 100 | Automotive and infrastructure applications ²⁾ . |

Healthcare

| Product name | MFR 230°C/2.16 kg [g/10 min] | Tensile modulus 1 mm/min [MPa] | Charpy impact strength, notched 23°C [kJ/m ²] | Key properties |
|-----------------------------|------------------------------------|---|--|----------------|
| PP homopolymers | | | | |
| Bormed™ HD810MO | 10 | 1,100 | 4.5 | NU |
| Bormed™ HD850MO | 8 | 1,800 | 5.5 | BNT |
| Bormed™ HF840MO | 19 | 1,250 | 3.5 | SA |
| PP block copolymer | | | | |
| Bormed™ BE860MO | 13 | 1,250 | 8.0 | |
| PP random copolymers | | | | |
| Bormed™ RB845MO | 1.9 | 1,000 | 7.0 | |
| Bormed™ RF825MO | 20 | 1,150 | 6.0 | NU |
| Bormed™ RF830MO | 20 | 1,150 | 6.0 | NU |
| Bormed™ RG835MO | 30 | 1,200 | 6.0 | NU, SA |

| Product name | MFR 190°C/2.16 kg [g/10 min] | Density [kg/m ³] | Tensile modulus 1 mm/min [MPa] | Key properties |
|------------------|------------------------------------|---------------------------------|---|-----------------|
| HDPE | | | | |
| Bormed™ HE2581PH | 0.3 | 958 | 1,300 | Very high ESCR |
| Bormed™ HE7541PH | 4 | 954 | 850 | ESCR |
| Bormed™ HE9621PH | 12 | 962 | 1,150 | Easy processing |

The product(s) mentioned herein are not intended for use as medical implant material or implantable medical devices. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose. It is the customers' responsibility to inspect and test our products in order to satisfy themselves as to the suitability of the products for the customers' particular purpose. Customers are responsible for the appropriate, safe and legal use, processing and handling of our products.

Applications/properties

Good transparency, suitable for radiation up to 25 Kgy.

High HDT and good transparency.

Material for products requiring low COF.

Very good impact, suitable for pharmaceutical containers and closures.

Good transparency for ampoules and bottles.

Excellent transparency. Main application: syringes.

Excellent transparency, suitable for radiation up to 25 Kgy.

Main application: syringes.

Excellent transparency for products requiring low COF. Application: syringes.

Applications/properties

Excellent processability for bottles up to 10 l.

Excellent processability for closures & packaging.

Syringe plungers, closures and packaging.

Facts

Polypropylene MFR

[230°C/2.16 kg] g/10 min = ISO 1133

Polyethylene MFR

[190°C/2.16 kg] g/10 min = ISO 1133

BNT = Borealis Nucleation Technology, giving highly nucleated polypropylenes with excellent dimension consistency, regardless of colour pigments, and a high potential for cycle time reduction and lightweighting.

CR = Controlled Rheology (CR) grades have a narrower molecular weight distribution resulting in reduced internal stresses and excellent dimensional stability.

SA = Slip Agent

AS = Antistatic Agent

NU = Nucleating Agent

UV = UV-stabilised

PB = Partial Break

Food contact regulations and certificate on pharmaceutical use

If required, contact your Borealis or Borouge representative for a certificate.

For Technical Data Sheets, Safety Data Sheets and Product Liability Statements please visit us at www.borealisgroup.com and www.borouge.com or contact your Borealis or Borouge representative.

Borealis and Borouge Moulding

Borealis & Borouge Moulding specialise in supplying advanced polyolefin plastics for injection, rotational moulding and blow moulding processing technologies. Through leading technologies such as Borstar®, and BNT (Borealis Nucleation Technology) and a product portfolio for a wide range of applications like bottles, thin wall packaging, caps and closures, transport packaging, houseware and healthcare, Borealis and Borouge have over 40 years established a leading position on the moulding market across Europe, the Middle East and Asia. Borealis and Borouge believe that customer-driven innovation is the only way to achieve and sustain progress. In the moulding industry, Borealis and Borouge have pioneered the development of several leading edge solutions. For example, low temperature impact; transparent polyolefins have opened up new opportunities in deep freeze display packaging. In the ISBM segment, biaxially oriented PP has reduced the weight and increased the transparency of bottles. Through foresight and focus on customer needs, Borealis and Borouge continue to provide innovative solutions for the moulding industry that add real value throughout the value chain. We know the high value that our customers in the moulding industry place on product consistency and processability. We pride ourselves on the performance of our products, and through ongoing investment in upgrades and new plant programmes, we continue to set new records for output efficiency and product reliability. Borealis and Borouge believe that responsiveness is the foundation of fruitful customer partnerships. We ensure this through the resources of strategically placed production hubs in Sweden, Austria, Belgium, Finland, USA and Abu Dhabi, an Innovation Centre in Stenungsund, Sweden with an affiliate in Rockport, New Jersey, USA, as well as a well dispersed sales and agent network around the World.

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