

TECHNICAL DATA SHEET

POLYETHYLENE BRALEN RB 03-23

LDPE FOR GENERAL PURPOSES

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

DESCRIPTION

BRALEN RB 03-23 is a general purpose grade of low density polyethylene. It is characterized by high environmental stress cracking resistance and very good mechanical properties. This grade is additives free.

APPLICATIONS

BRALEN RB 03-23 is designed for production of heavy duty and shrink films of thickness 0.07 – 0.25 mm. It is well suited for blow moulding of various containers, pipes, sheets and profiles extrusion and also for injection moulding. It is suitable for toys production.

BRALEN RB 03-23 is suitable for food contact. The product complies with Food Contact Regulations. The grade is suitable for manufacturing of pharmaceutical packing-product.

PROPERTIES

| | Test method | Unit | Typical value |
|------------------------------------|---------------------|-------------------|---------------|
| MFR (190 °C /2.16 kg) | ISO 1133-1 | g/10 min | 0.35 |
| Density (23°C) * | ISO 1183-1 method C | kg/m ³ | 919 |
| Tensile strength (MD/TD) ** | ISO 527-1,3 | MPa | 24/24 |
| Tensile strain at break (MD/TD) ** | ISO 527-1,3 | % | 450/550 |
| Dart drop ** | ISO 7765-1 method A | g | 300 |
| Haze ** | ISO 14 782 | % | 16 |
| Vicat softening temperature * | ISO 306/A 50 | °C | 95 |
| Shore D hardness * | ISO 868 | - | 47 |

Typical properties, not to be used as specification.

* Average mechanical property values of several measurements carried out on standard injection-moulded test specimens prepared in accordance with ISO 1872-2.

** Properties on film in M.D./T.D. - thickness of 0.07 mm (MFR=0.35g/10min) and 0.04 mm (MFR more than 0,35g/10min), blow up ratio 2.5:1.

PROCESSING

BRALEN RB 03-23 can be used in conventional extrusion machines. Recommended processing temperatures are 170-210 °C.

TECHNICAL DATA SHEET

POLYETHYLENE BRALEN RB 03-23

LDPE FOR GENERAL PURPOSES

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

STORAGE AND HANDLING

Pellets are packed in 25 kg PE-LD bags and transported on stretch or shrink-wrapped pallets at eligible load of polymer 1375 kg. Heat treated pallets are available as well. We use adhesive between the bags in order to avoid their slipping. Pay attention to this fact during the removing of the bags from the pallets. The preferred method is to lift the bag at first without rotation. Transportation in a road silo or rail silo is also available. For more detailed information please contact SLOVNAFT and TVK sales representative.

Since polyethylene is a combustible substance, the fire safety rules applicable for combustible materials in warehouses and store rooms should be observed.

If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condense inside the packing. If it happened, it is recommended the pellets to be dried before use. During the storage polyethylene should not be exposed to UV radiation and temperatures above 40°C. Producer does not take responsibility for any damages caused by adverse storage.

REACH STATEMENT

Polymers are exempt of REACH registration. However, their raw materials which mean monomers and relevant additives have been registered.

SLOVNAFT, a.s. is committed to fully respect legislation and will only use REACH compliant raw materials.

At this point in time LDPE BRALEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

SAFETY

See MSDS.

RECYCLING

Polyethylene resins are suitable for recycling using modern recycling methods.

In-house production waste should be kept clean to facilitate direct recycling.

DISCLAIMER

The information provided in this publication has been compiled to the best of our present knowledge. However, in view of the various applications of polyethylene resins and the equipment used, the processing conditions may differ.

The recommendations and data herein are to be construed as informational only and do not relieve users from carrying out their own tests and experiments prior to processing in order to check suitability for a specific use. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. Our products are under continuous development, therefore we reserve the right to change the information presented in this brochure at our own discretion.

The REACH statement herein does not constitute legal advice. The REACH statement is provided for informational purpose only.

**TECHNICAL DATA SHEET
POLYETHYLENE BRALEN RB 03-23
LDPE FOR GENERAL PURPOSES**

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

MANUFACTURER

SLOVNAFT, a.s.

Vlčie hrdlo 1

824 12 Bratislava

Slovak Republic

Internet: www.slovnaft.sk

E-mail: infopolymer@slovnaft.sk

TECHNICAL SERVICE

SLOVNAFT, a.s.

Polymers Business Support

Telephone: + 421 2 5859 7250

+ 421 2 5859 7257

E-mail: polymerservice@slovnaft.sk

SALES ORGANIZATION

SLOVNAFT, a.s.

Polymer Sales

Vlčie hrdlo 1

824 12 Bratislava

Slovak Republic

Telephone: + 421 2 5859 7515

+ 421 2 5859 7741

+ 421 2 5859 7231

E-mail: polymersales@slovnaft.sk

TVK Plc.

H-3581 Tiszaújváros,

P.O. Box: 20

Hungary

Telephone: +36 49 521 355

Fax: +36 49 886 491

E-mail: polymersales@tvk.hu

MOL Germany GmbH.

Im Trutz Frankfurt 49

D-60322 Frankfurt am Main

Germany

Telephone: +49 69 154 04 0

Fax: +49 69 154 04 41

E-mail: polymersales@molgermany.de

MOL- Austria Handels GmbH.

Walcherstrasse 11A, 7. Stock

A-1020 Wien

Austria

Telephone: +43 1 211 20 1120

Fax: +43 1 211 20 1198

E-mail: JHauk@molaustria.at

**TECHNICAL DATA SHEET
POLYETHYLENE BRALEN RB 03-23
LDPE FOR GENERAL PURPOSES**

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

TVK Italia S.r.l.

Via Teulié, 1
20136 Milano
Italy
Telephone: +39 02 58 30 5523
Fax: +39 02 58 30 3492
E-mail: tvkitaly@it.tvk.eu

French Liaison Representative

Paris
France
Mobile Phone: + 33 7 89 86 10 64
Telephone: + 33 1 64 32 44 17
E-mail: husson.iren@fr.tvk.eu

MOL Ukraine LLC

04655 Kiev
Moskovskiy ave, 23, 7th floor
Ukraine
Telephone: +380 44 374 00 80
+380 67 463 58 69
Fax: +380 44 374 00 90
E-mail: JZavojko@mol-ukraine.com.ua

SLOVNAFT Polska S.A.

PetChem Department
ul. Wąwozowa 23/12
PL 02-796 Warszawa
Poland
Telephone: +48 22 545 70 70
Fax: +48 22 545 70 60
E-mail: petchem@slovnaft.pl

TIFON d.o.o.

Savska cesta 41/XIII
HR – 10000 Zagreb
Croatia
Telephone: +385 1 6160 600
Fax: +385 1 6160 601
E-mail: polymersales@tifon.hr

SC. MOL Romania P.P. SRL

Str. Danielopolu 4-6
ET2 Sector 1 Cod 014 134
Bucuresti
Romania
Telephone: +40 21 204 85 00
+40 21 204 85 02
Fax: +40 21 232 10 59
E-mail: petchem@molromania.ro

Other European Countries

Telephone: +36 49 521 355
+36 70 458 4563
+36 70 373 9209
Fax: +36 49 886 491
E-mail: polymersales@tvk.hu