Solutions for Extrusion Coating applications

Borealis and Borouge are leading providers of innovative plastics solutions that create value for society. Building on the unique Borstar® and Borlink™ technologies and 50 years of experience in polyolefins, Borealis and Borouge support key industries including **infrastructure**, **automotive and advanced packaging**. Their manufacturing capacity reaches over 5.4 million tonnes of polyethylene and polypropylene per year.

Borealis is headquartered in Vienna, Austria, and operates in over 120 countries with around 6,200 employees worldwide.

Borouge, its joint venture with the Abu Dhabi National Oil
Company (ADNOC), employs approximately 1,700 people, has customers in more than 50 countries and its headquarters are in Abu Dhabi in the UAE and Singapore. Together, both companies provide services and products to customers around the world.
Borealis offers a wide range of base chemicals, including melamine, phenol, acetone, ethylene and propylene servicing a wide range of industries.

Together with Borouge the two companies will produce approximately 6 million tonnes of Base Chemicals in 2014. Borealis also creates real value for the agricultural industry with a large portfolio of fertilizers. The company distributes approximately 2.1 million tonnes per year. This volume will increase to around 5 million tonnes by the end of 2014.

Borealis and Borouge proactively benefit society by taking on today's challenges and are working to drive ideas forward. Both companies are committed to the principles of Responsible Care*, driving improved safety performance within the chemical industry and contributing to addressing the world's water and sanitation challenges through product innovation and their Water for the World™ programme.

For more information visit:

www.borealisgroup.com www.borouge.com www.waterfortheworld.net

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or more information:

visit www.borealisgroup.com and www.borouge.com

Borealis AG · IZD Tower

Wagramer Strasse 17-19 · A-1220 Vienna · Austria Tel +43 1 22 400 000 · Fax +43 1 22 400 333

Borouge Pte Ltd · Sales and Marketing Head Office 1 George Street 18-01 · Singapore 049145





Solutions for Extrusion Coating Applications



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Polyethylene products	MFR 190°C/2.16 kg [g/10min]	Density [kg/m³]	Draw down [m/min]	Minimum coating weight [g/m²]	Note	Properties
LDPE						
CA7230	4.5	923	700	7.0		Good processing, low permeability to moisture and gases.
CA8200	7.5	920	850	5.0		Excellent for high line speeds and thin coatings, good heat sealing and adhesion, flexible packaging.
CA9150	15	915	650	5.0		Especially used for low-temperature heat sealing, good adhesion and clear coatings. Typical extrusion temperatures are 270-310°C.
HDPE						
CG8410	7.5	941	500	8.0		Very good barrier properties, good heat, oil and fat resistance, low friction (COF) and high stiffness, very good processing.
CG9620	12	962	400	3.0 + 6.0	Co-Ex LD + HD	HDPE, which has very high density. Excellent water vapour and heat barrier, grease resistance. Recommended to use in a co-extrusion structure with LDPE.
Specialty PE						
CC7209	5.2	1,150			30% inorganic filler	Improved adhesion in particular to aluminium, very good print quality, high production speed, good processing, normally 50/50 blended with LDPE.
CC7238	4.5*	923*			12.5 % TiO ₂	TiO ₂ white compound, excellent dispersion and coverage even at high line speeds.
CT7200	5.0	918				low-density polyethylene homopolymer for extrusion coating, produced with high pressure tubular technology. Excellent for high line speeds and thin coating, good heat-sealing and adhesion.
Queo [™] 0210	10.0	902				C8 mPE Plastomer, best in class heat-sealing at reduced seal layer thickness. For more information www.borealisgroup.com/plastomers
Queo [™] 0219	19.0	902				C8 mPE Plastomer, best in class heat-sealing at reduced seal layer thickness. For more information www.borealisgroup.com/plastomers

Polypropylene products	MFR 230°C/2.16 kg [g/10 min]	Density [kg/m³]	Draw down [m/min]	Minimum coating weight [g/m²]	Note	Properties
PP						
WG320C	18	910	400	12		Good processing, low neck-in, good heat resistance and adhesion to woven PP fabric, paper and board.
WG341C	26	910	450	10		Good processing, low neck-in, good heat resistance and adhesion to woven PP fabric, paper and board.
Specialty PP						
WG350C	18	1,040			18% inorganic filler	Filled polypropylene for sterile peel-seal applications - especially lids for food packaging.
Daploy™ WE100HMS	10	905			HMS-modified	Can be used as processing modifier. Used in combination with standard PP, the polymer structure improves processability, melt strength and melt extensibility. Minimum concentration 30%.
Daploy™ WF420HMS	22	905	>500	7	HMS-modified	HMS-modified polypropylene homopolymer with excellent temperature and grease resistance. Very good barrier properties and excellent processing.
Daploy™ SF313HMS	13	910			HMS-modified	HMS modified polypropylene copolymer with good heat resistance and excellent heat sealing performance.

*Density/MFR base resin MFR (Melt Flow Rate) = ISO 1333 Density = ISO 1183

Food contact regulations: Borealis coating products are developed to meet the requirements for food contact applications in most countries. If required, contact your Borealis or Borouge representative for a certificate.