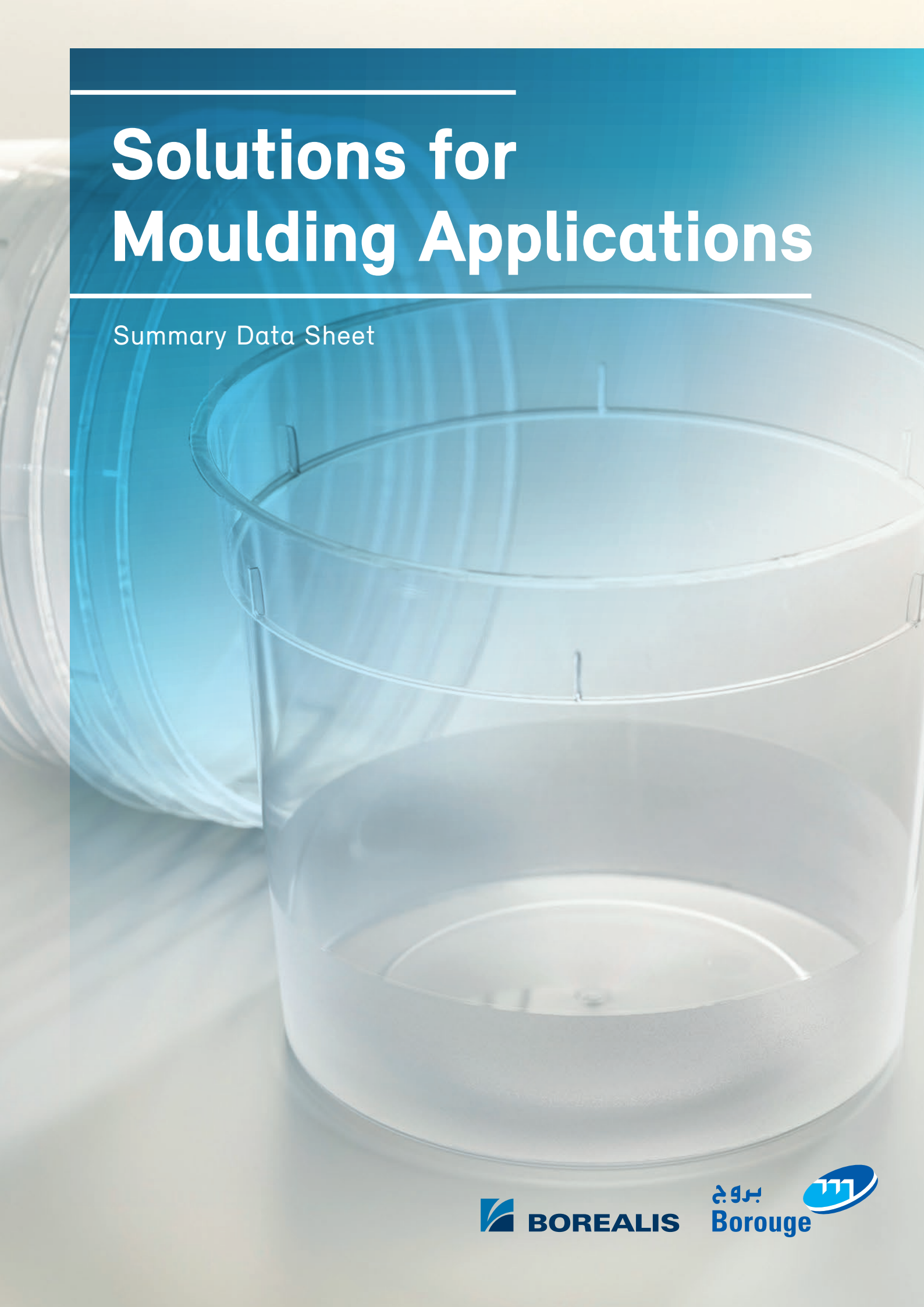
Solutions for Moulding Applications

Summary Data Sheet



BOREALIS

بروج
Borouge

Moulding product nomenclature key

Polyethylene

M	B: Blow moulding M: Injection moulding				
B					
5	0: $MFR_{2.16}$	0-4	5: $MFR_{2.16}$	0.71-1.4
	1: $MFR_{2.16}$	4.1-18	6: $MFR_{2.16}$	1.41-2.9
	2: $MFR_{2.16}$	> 18	7: $MFR_{2.16}$	3.0-5.0
	3: $MFR_{2.16}$	0-0.4	8: $MFR_{2.16}$	5.1-8.0
	4: $MFR_{2.16}$	0.41-0.7	9: $MFR_{2.16}$	> 8.1
5	Density: corresponds to 956 kg/m³			
6				
8				

Polypropylene

R	H: Homopolymer B: Block copolymer	R: Random polymer S: Specialities
J	A: MFR 0-0.8 B: MFR 0.8-2.5 C: MFR 2.5-5.0 D: MFR 5.0-10 E: MFR 10-15	F: MFR 15-20 G: MFR 20-30 H: MFR 30-50 J: MFR 50-100
7		
6		
6		
M	MO: Product belonging to moulding	
O		

Test methods

Melt flow rate:	ISO 1133
Tensile modulus, stress & strain:	ISO 527-2
Charpy impact strength, notched:	ISO 179/1eA
ESCR:	ASTM 1693 (10% igepal)
Density:	ISO 1183
HDT, method B (0.45 MPa):	ISO 75-2

Test methods

Melt flow rate:	ISO 1133
Tensile modulus:	ISO 527-2
Charpy impact strength, notched:	ISO179/1eA
HDT, method B (0.45 MPa):	ISO 75-2

Mechanical properties determined on injection moulded specimens made according to ISO 1873-2, based on 7 days conditioning time.

BorPure™

High purity grades setting new standards in organoleptic performance combined with outstanding flow properties.

Solutions for Moulding Applications

Product name	Conversion	MFR (g/10 min) PE: 190 °C/2.16 kg	Density (kg/m³)	Tensile modulus (MPa)	Charpy 23 °C, (kJ/m²)	HDT B (°C)	ESCR (h) Igepal 10%	Characteristics	Thin wall packaging	Houseware	Transport packaging	Caps & closures	Technical applications	Bottles and container	Sheet
PE high density															
BB2541	BM	0.3	954	1,100	9	75	500	multimodal						•	
BB2581	BM	0.3	958	1,300	8	80	100	multimodal						•	
BorPure MB6561	IM, CM	1.5	955	900	12		500	multimodal				•			
BorPure MB7541	IM, CM	4	954	850	9	65	40	multimodal			•	•			
BorPure MB5568	IM, CM	0.8	956	1,000	19		750	multimodal			•	•			
BorPure MB5569	IM, CM	0.8	956	1,000	19		750	multimodal, SA				•			

Abbreviations
AS: antistatic agent – **BNT**: Borstar Nucleation Technology – **CR**: controlled rheology – **NU**: nucleating agent – **SA**: slip agent – **UV**: UV stabilised – **HDT**: heat deflection temperature – **ISBM**: injection stretch blow moulding – **TF**: thermo forming – **IM**: injection moulding – **BM**: blow moulding – **CM**: compression moulding – **PB**: partial break – **nb**: no break

Additional data for each product is given in individual datasheets found at: www.borealisgroup.com and www.borouge.com.
For healthcare applications, see the Bormed™ summary data sheet at: www.borealisgroup.com and www.borouge.com.

*MFR (190 °C/2.16 kg) g/10 min



Product name	Conversion	MFR (g/10min) PP:230 °C/2.16kg	Tensile modulus (MPa)	Charpy 23 °C, (kJ/m²)	Charpy -20 °C, (kJ/m²)	HDT B (°C)	Characteristics	Thin wall packaging	Houseware	Transport packaging	Caps & closures	Technical applications	Bottles and container	Sheet
PP heterophasic (block) copolymers														
BB125MO	BM, sheet	1.3	1,300	50PB	7	85	NU			•			•	•
BC245MO	IM	3.5	1,350	15	6.5	85	AS, NU			•				
BC250MO	IM	4	1,200	25PB	7.5	80	AS, NU			•				
BD950MO	IM, CM	7	1,500	8	4	90	BNT, AS, SA				•			
BD310MO	IM	8	1,400	9	4	85	AS, NU		•	•		•		
BE961MO	IM	12	1,200	13	6.5	90	BNT, AS		•	•	•	•		
BE170CF	IM	13	1,250	8	3.5	80			•	•				
BF970MO	IM	20	1,500	8	4.5	100	BNT, AS	•	•	•	•	•		
BH381MO	IM	35	1,700	6.5	3.5	105	BNT, AS	•	•	•	•	•		
BH345MO	IM	45	1,400	6	3.5	85	AS, NU	•	•					
BH374MO	IM	45	1,500	6	3.5	95	BNT, AS	•	•					
BH348MO	IM	50	1,150	10	5	85	BNT, AS	•	•					
BJ368MO	IM	70	1,500	5.5	3.5	100	BNT, AS	•	•					
BJ380MO	IM	80	1,300	5	3.5	90	CR, AS, NU	•	•					
BJ356MO	IM	100	1,600	4	2.5	105	AS, NU	•	•					
BJ998MO	IM	100	1,400	5	3	100	BNT, AS	•	•					
PP specialities														
SD233CF	IM	7	600	11	5	55	High softness transparent	•	•		•			
SH950MO	IM	40	1,050	8	3	75	BNT, AS, transparent with impact	•	•		•			

Product name	Conversion	MFR (g/10min) PP-230 °C/2.16kg	Tensile modulus (MPa)	Charpy 23 °C, (kJ/m²)	HDT B (°C)	Characteristics	Thin wall packaging	Houseware	Transport packaging	Caps & closures	Technical applications	Bottles and container	Sheet
PP homopolymers													
HB306MO	IM, CM	2	1,900	5	100	BNT, AS, SA				•			
HD120MO	IM	8	1,500	3.5	90			•					
HE125MO	IM	12	1,550	3.5	88			•		•			
HF955MO	IM	20	2,200	2.5	115	BNT	•	•		•	•		
HF136MO	IM	20	1,500	3	85	CR		•					
HG385MO	IM	25	1,750	3	108	BNT, CR, AS, SA				•			
HG313MO	IM	30	1,500	2.5	90	CR, AS, NU, SA				•			
HJ325MO	IM	50	1,650	2	100	CR, AS, NU	•	•					
PP random copolymers													
RB307MO	BM	1.5	900	25	70	NU	•	•					
RB206MO	BM	1.9	1,150	7	80	NU, hot fill	•	•					
RC737MO	BM	3	1,000	15		NU, excellent transparency							
RE420MO	IM	13	1,100	6	75	AS, NU	•	•					
RF365MO	IM	20	1,150	5.5	75	AS, NU	•	•					
RF366MO	IM, ISBM	20	1,200	5.5	75	AS, NU excellent transparency	•	•					
BorPure RG466MO	IM	30	1,100	5.5	75	BNT, AS, good organoleptics	•	•					
BorPure RJ377MO	IM	45	1,100	4.5	75	BNT, AS, good organoleptics	•	•					
BorPure RJ766MO	IM	70	1,150	4.5	75	BNT, AS, good organoleptics	•	•		•			
RJ901MO	IM	110	1,100	4.5	80	CR, AS, NU	•	•		•			

About Borealis

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. With headquarters in Vienna, Austria, the company currently has around 6,500 employees and operates in over 120 countries. Borealis generated EUR 7.7 billion in sales revenue and a net profit of EUR 988 million in 2015. The International Petroleum Investment Company (IPIC) of Abu Dhabi owns 64% of the company, with the remaining 36% belonging to OMV, an international, integrated oil and gas company based in Vienna. Borealis provides services and products to customers around the world in collaboration with Borouge, a joint venture with the Abu Dhabi National Oil Company (ADNOC).

Building on its proprietary Borstar® and Borlink™ technologies and more than 50 years of experience in polyolefins, Borealis and Borouge support key industries with a wide range of applications in the areas of energy, automotive, pipes, consumer products, healthcare, and advanced packaging.

The Borouge 3 plant expansion will make Borouge the world's largest integrated polyolefins complex. Once fully ramped up in 2016, the additional 2.5 million tonnes of polyolefins capacity will yield a total Borouge capacity of 4.5 million tonnes, and a combined Borealis and Borouge capacity of 8 million tonnes.

Borealis offers a wide range of base chemicals, including melamine, phenol, acetone, ethylene, propylene, butadiene and pygas, servicing a wide range of industries.

Borealis also creates real value for the agricultural industry, selling approximately 5 million tonnes of fertilizers. Technical nitrogen and melamine products complement the portfolio with applications ranging from mono-nitrogen oxide (NO_x) abatement to glues and laminates in the wood working industry.

Borealis and Borouge aim to proactively benefit society by taking on real societal challenges and offering real solutions. Both companies are committed to the principles of Responsible Care®, an initiative to improve safety performance within the chemical industry, and work to solve 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

For more information:
visit www.borealisgroup.com and www.borouge.com

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