Solutions for the automotive industry

Automotive - interior

Trade/Grade name	Filer content [% indic.]	Density [kg/m³]	MFR 230°C/2.16 kg [g/10 min]	Stress at yield [N/mm²]	Tensile modulus tensile [MPa]	Impact, Charpy notched, 23°C [kJ/m²]	Impact, Charpy notched, -20°C [kJ/m²]	HTD B, (0.45 MPa) [°C]	Shrinkage(*) Indication [%]	Scratch resistance, low high dL (fine grain 10 N)	Gloss high low fine grain, 60°	Typical applications
Copolymer												
BC612WG	-	900	5	24	1,100	9	4	70	1.6	n. r.	n. r.	Under the bonnet component parts
BE677AI	-	905	14	26	1,500	9	4.5	110	1.5			Door cladding, interior cladding
BF970MO	-	905	20	27	1,500	8.5	4.5	105	1.5			Door cladding, interior cladding
BH345MO	-	904	45	26	1,400	6.5	4	95	1.4			Trunk cladding
Microcomposites												
Borcom™ BG055AI	-	920	22	35	2,000	4	1.5	108	1.5			Climate control housings, trunk cladding
Homo mineral												
MD231U	20	1,050	6	36	2,900	3	1.2	125	1.1	n. r.	n. r.	Under bonnet covers, heater case
ME212U	20	1,050	12	32	3,300	2.5	1.2	125	1.1	n. r.	n. r.	Climate control units, interior trims
MS64T20	20	1,070	22.5	32	3,100	2.5	1.2	120	1.1	n. r.	n. r.	Cowl vent grill
PS65T20	20	1,040	23	32	2,600	2.5	1.2	126	1.1	n. r.	n. r.	Door insert, trunk cladding
MG302AI	30	1,140	24	31	3,300	1.5	1.2	125	0.9	n. r.	n. r.	Door insert, trunk cladding
MD441U	40	1,220	6	32	3,800	3	1.2	132	0.9	n. r.	n. r.	Under the bonnet parts
Copo mineral												
MC55T1	10	970	13	26.3	2,000	6.9	3	114	1.3			Interior panels, tailgate cladding
ME266U	20	1,050	12	28	2,500	6	2.5	110	1.1			Door panels, interior trims
Daplen™ MSC65T20AI	20	1,060	12	27	2,300	6.5	2.5	105	1.1			Centre console, interior trims
PSC63T20	20	1,070	22	25.6	2,400	4	2.6	109	1.2			Interior panels
FSC65T30	30	1,150	5	24	3,000	7	2.5	125	0.9			Interior panels
TPO compound interior												
Daplen™ ED135AI	10	950	6	17	1,400	55	6	87	1.1			Instrument panel parts
Daplen™ ED206HP	25	1,060	7	20	1,900	20	5.2	120	0.6			Dashboard, seat cladding
Daplen™ EE188AI	15	1,030	11	22	1,850	16	4.5	100	1			Dashboard, door panels-Scratch resistance
Daplen™ EE188HP	15	1,020	13	22	1,850	22	3.5	105	0.95			Dashboard, door panels-High scratch resistance
Daplen™ EE157AI	15	980	11	23	1,700	25	5	95	1			Dashboard, door panels-High scratch resistance
Daplen™ EE168AI	15	990	14	20	1,700	13	5	97	1.1			Dashboard, door panels-Scratch resistance
Daplen™ EE260AI	20	1,070	14	23	2,300	20	4	97	0.9			Dashboard, interior trims
Daplen™ EG102AI	15	999	26	20	1,900	20	3	100	0.95			Door panels, low pressure moulding
Daplen™ KSR65T20	20	1,040	6	21	1,700	11	3	98	1			Centre console, pillars, door cladding
Daplen™ KSX65T20	20	1,010	6	20	1,600	25	4.3	91	1			Multispot, pillar trims, door cladding
Glass fibre reinforced												
GB205U	20	1,040	2.2	75	4,800	10.5	7.5	154	0.8	n. r.	n. r.	Air filters, bumper bracket
GB311U	30	1,120	2	97	6,800	11	9	159	0.7	n. r.	n. r.	Air filter, brackets, UTB parts
Nepol™ GB303HP	30	1,120	-	125	7,400	23	26	165	0.5	n. r.	n. r.	Structural interior component parts
Nepol™ GB601HP	60	1,480	-	-	-	-	-	-	-	n. r.	n. r.	PP-LGF concentrate for dilution technology
Xmod™ GD302HP	30	1,160	3.3	65	5,600	24	13	165	0.5	n. r.	n. r.	Seat structures, interior structural parts
Long glass fibre reinforced												
Nepol™ GB215HP	20	1,040	-	-	5,300	19	19	158	0.45	n. r.	n. r.	Long glass fibre-Instrument panel carriers, foamable

***** Shrinkage values are measured on injection moulded plaques, data on other items may vary because of other moulding conditions. These values may not be used for design of tools, pre-trials on similar moulds are strictly recommended.

n. r.: not relevant

Legend Scratch Resistance:

>6
4.1-6
2.1-4
0.6-2
<0.6

Legend Gloss:

>5
4.1-5
3.1-4
2.6-3
<2.6

Automotive - exterior, under the bonnet

Trade/Grade name	Filler Content [% indic.]	Density [kg/m³]	MFR 230°C/2.16 kg [g/10 min]	Stress at yield [N/mm²]	Tensile modulus [MPa]	Impact Charpy notched 23°C [kJ/m²]	Impact Charpy notched -20°C [kJ/m²]	HTD B, [0.45] [°C]	Shrinkage (*) Indication [%]	CLTE [-30, +80°C] [µm/ mK]	Typical application	Special properties
Scratch resistant												
Daplen™ EE108U	10	990	16	16	1,000	35	7	85	0.9	61	Unpainted bumper fascias, rocker panels, body side mouldings	Excellent scratch and weathering resistance
Daplen™ EE260AE	20	1,070	13	23	2,000	34	3	97	0.9	55	Bumper fascia, rocker panels, truck exterior components	Excellent scratch and weathering resistance
Glass fibre reinforced												
GB205U	20	1,040	2.2	75	4,800	10.5	7.5	154	0.8	24/102	Engine covers, fans and shrouds, bumper brackets	Long-term heat resistance
GB311U	30	1,120	2	97	6,800	11	9	159	0.7		Air filter cases, lamp housings	Excellent dimensional stability
GD310U	30	1,120	10	95	7,100	10	9.5	159	0.6		Under the bonnet parts	High flowability
Xmod™ K65G2	20	1,040	6	85	5,500	8	7	160	0.7	24/105	Climate control blower wheel	Increased stiffness, low emission
Xmod™ K65G3	30	1,120	6	105	7,400	10	8	162	0.6	22/100	Housings for airflap actuators	High stiffness, excellent dimensional stability
Xmod™ GD301HP	30	1,150	4	108	8,100	9.5	8.5	152	0.6	18/100	Pedal carriers, under the bonnet parts	Excellent mechanical balance
Xmod™ GB306SAF	35	1,180	2	118	9,000	11	10	164	0.6	16/110	Air intake manifold, shrouds	Excellent mechanical properties, copper resistance. Significantly better acoustic behaviour
Long glass fibre reinforced												
Nepol™ GB303HP	30	1,120		125	7,400	23	26	165	0.5	18/100	Front end, seat structures, door module carrier, instrument panel carrier	Excellent stiffness/impact balance, very high dimensional stability
Nepol™ GB601HP	60	1,480									Front end, door module carrier, instrument panel carrier	PP-LGF concentrate, dilution technology
BJ100HP	n.r	904	90	25	1,300	4.5	2.2	88	1.6	100	Compound for direct LFT and PP-LGF dilution	Low viscosity, excellent fibre-matrix coupling, high heat stability
TPO compound exterior												
Daplen™ ED230HP	20	1,050	10	19.5	1,800	30	4	105	0.8	52	Exterior body panels	Excellent paintability; shrinkage like PC/PBT used for exterior applications, body panels
Daplen™ KB4436	30	1,120	20	16	2,100	13	3.5	95	0.6	32	Window frame, body side mouldings, rocker panels	Very low thermal expansion, excellent scratch resistance
Daplen™ ED117AE	10	970	9	18	1,250	50	8	92	1	80	0-gap bumper painted	Excellent surface hardness and paint adhesion
Daplen™ EE103AE	10	950	12	19	1,400	60	6	92	1	72	0-gap bumper	Excellent paint adhesion and excellent stiffness
Daplen™ EF005AE	10	950	25	16	1,060	52	6	85	0.8	65	0-gap bumper painted	Low CLTE, excellent surface appearance, good processing behaviour
Daplen™ ED213AE	20	1,020	6.5	16	1,500	40	10	98	0.6	50	Rocker panels, exterior panels	Excellent paint adhesion, very low thermal expansion
Daplen™ EE109AE	20	1,040	13	16	1,400	40	5	92	0.65	50	Painted bumper, rocker panels	High flowability, very low CLTE
Daplen™ EE209AE	20	1,040	13	16	1,400	65	20	93	0.55	45	0-gap bumper painted	Very low CLTE, excellent impact
Daplen™ EE340AE	30	1,140	12	16	1,500	49	4.6	101	0.5	30	Rocker panels, body panels	High flowability, very low CLTE
Daplen™ EF109AE	20	1,080	20	16	1,400	36	5	90	0.6	42	0-gap bumper painted	Very low CLTE, high flowability
Daplen™ EF341AE	30	1,145	15	25	3,100	7.5	2.5	123	0.75	54	Fenders, exterior body pannels	Excellent processability, high stiffness, A Class surface, very low CLTE
Daplen™ EE255AE	20	1,050	13	16	1,500	58	6	97	0.65	49	0-gap bumper painted	High Impact/stiffness balance, very low CLTE, paint adhesion
Daplen™ EF209AE	20	1,040	21	14.5	1,500	51	4.5	95	0.65	35	0-gap bumper fascias	Very high flow, impact/stiffness balance, very narrow gap tolerances
Free Flow Line												
Daplen™ EH104AE	10	980	40	16	1,150	28	5.8	80	0.8		Bumper overriders, spoilers, exterior unpainted trims	Free flow line/ tiger stripes, UV modified, good SR: unpainted bumpers, offroad trims, overriders, spoilers
Microcomposites												
Borcom™ WE007AE		925	12	20	1,200	35	5.5	91	0.95	65	Bumper fascias, rocker panels, body panels	Good impact/stiffness balance-similar typical TPOT10 with much lower density, improved scratch resistance, excellent paintability

*Shrinkage values are measured on injecion moulded discs, data on other items may vary because of other moulding conditions. These values may not be used for design of tools, pre-trials on similar moulds are strictly recommended.

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Solutions for

The Automotive Industry

Solutions for the automotive industry

Borealis - a leading, innovative plastics provider

Borealis is a leading provider 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, through Borouge, our joint venture with the Abu Dhabi National Oil Company (ADNOC). Our production facilities, innovation centres and service centres work with customers in more than 120 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'™.

The Business Unit Automotive and Appliances specialises in supplying advanced polyolefin plastics to leading manufacturers in the automotive component, household appliances and white good industries. Through leading Borealis technologies and an extensive product portfolio including Daplen™, Borcom™ and Nepol™, Borealis has established a leading position on the automotive and appliance market across Europe and South America.

Borealis believes that customer-driven innovation is the only way to achieve and sustain progress. Through foresight and focus on customer needs, we continue to provide innovative solutions for the automotive and appliance industry that add real value throughout the value chain. We also know the high value that our customers in the automotive and appliance industry place on quality and product consistency. 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 believes that responsiveness is the foundation of fruitful customer partnerships. Business Unit Automotive and Appliances ensures this through the resources of strategically placed Borealis hubs across Europe: Borealis Belgium, Borealis Central Europe and Monza (Italy) and 2 compounding facilities in Brazil, as well as an innovation centre in Linz, a strong sales force across Europe and close cooperation with its joint venture partner Borouge for Middle East and Asia.

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