

Ultraform® (POM)

Product Range Brochure



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Ultraform® (POM)

Ultraform® is the trade name for the range of thermo-plastic polyoxymethylene copolymers from BASF.

The Ultraform® product family encompasses versatile engineering plastics with a wide variety of characteristics, which are designed for use in complex and heavy-duty components. Ultraform® grades offer everything you need from an engineering material: they combine high rigidity and strength with superb resilience, favorable sliding friction characteristics and good dimensional stability, even under the influence of mechanical forces, in contact with many chemicals, fuels and other media, and at elevated temperatures.

Main Application Areas of Ultraform®

- Automotive applications (e.g. sensor components, loudspeaker grids, clips and fasteners, spring elements)
- Everyday articles (e.g. shower head inserts, furniture fittings, coffee machine brewing units, zippers, pipe connectors, functional parts in door/window handles and toys)
- Industrial applications (e.g. ball bearings, gear wheels, links and connecting elements in conveyor chains and belts)
- Functional elements in medical devices (e.g. inhalers, Auto-injectors, Insulin pens, clips and clamps)

Ultraform® (POM)

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Product Range Overview

Unreinforced grades

H4320 AT	High-molecular-weight grade for extruding semifinished products. Thick-walled semifinished products in particular can be extruded at high output rates. High thermal stability and low discoloration tendency.
H2320 006 AT	High-molecular-weight grade with slightly increased flowability for injection molding of thick-walled moldings.
N2320 003 AT	Rapid-solidifying standard grade for injection molding. With drinking water listing, cold and warm.
N4320 003 AT	Rapid-solidifying standard grade for injection molding. With drinking water listing, cold, warm and hot.
S1320 003 AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. Increased rigidity and heat resistance.
S2320 003 AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. With drinking water listing, cold and warm.
W2320 003 AT	Very free-flowing, rapid-solidifying grade for use where processing is demanding but mechanical requirements are lower.

Reinforced grades

N2200 G23 AT	10% GF reinforced POM; injection molding grade for parts requiring high rigidity, strength, and whiteness.
N2200 G43 AT	20% GF reinforced POM; injection-molding grade for parts requiring high rigidity and strength along with good mold release. FDA food contact approved.
N2200 G43 R01 AT	20% GF reinforced POM; injection molding grade for parts requiring high rigidity, strength, and whiteness.
N2200 G53 AT	25% GF reinforced POM; injection-molding grade for parts requiring high rigidity and strength along with good mold release. FDA food contact approved.
N2200 G53 R01 AT	25% GF reinforced POM; injection molding grade for parts requiring high rigidity and strength.
N2720 M210 AT	Product with increased rigidity and strength together with good wear characteristics, used e.g. for sliding chains and conveyor systems.
N2720 M63 AT	Mineral-reinforced product for low-warpage moldings with high rigidity, strength, and hardness.

Impact-modified grades

N2640 Z2 AT, N2800 Z2 AT, N2640 Z4 AT, N2800 Z4 AT	Elastomer-modified injection-molding grades with high-impact strength for clips, snap-on and fixing elements, and for components subject to impact stress.
N2640 Z6 AT, N2800 Z6 AT	Elastomer-modified injection-molding grade for applications requiring maximum impact strength together with low rigidity.
N2644 Z9 AT	Elastomer-modified injection-molding grade for applications requiring maximum impact strength and a low modulus of elasticity. Good acoustic damping.

Low and very low-emission grades

N2320 003 LEV AT	Rapid-solidifying grade with moderate flowability for injection molding, with reduced emission potential. Food contact approved.
N2320 003 XLEV AT	Rapid-solidifying grade with moderate flowability for injection molding, with very low emission potential.
N2320 0035 LEV AT	Rapid-solidifying grade with moderate flowability for injection molding, with reduced emission potential.
S2320 003 LEV AT	Free-flowing, rapid-solidifying standard grade for injection molding, with reduced emission potential. Food contact approved.
W2320 003 LEV AT	Very free-flowing, rapid-solidifying grade for injection molding, with reduced emission potential. Food contact approved.
W2320 U035 LEV AT	UV-stabilized, very free-flowing and rapid-solidifying grade for injection-molding, with reduced emission potential.
N2640 Z2 LEV2 AT, N2640 Z4 LEV2 AT	Elastomer-modified injection-molding grades with high-impact strength for clips, snap-on and fixing elements, and for components subject to impact stress. Reduced emission potential.

Grades for medical applications

Ultraform® PRO AT grades offer a comprehensive service package (including long-term formulation consistency), specifically tailored to requirements in the medical sector.

N2320 003 PRO AT	Rapid-solidifying grade for injection molding, for applications demanding outstanding mechanical performance.
S1320 003 PRO AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. Increased rigidity and heat resistance.
S2320 003 PRO AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding.
S2320 003 PRO TR AT	Free-flowing, rapid-solidifying grade with special lubricant to minimize friction, stick-slip and squeaking.
W2320 003 PRO AT	Very free-flowing, rapid-solidifying grade for use where processing is demanding but mechanical requirements are lower.
W2320 003 PRO TR AT	Very free-flowing, rapid-solidifying grade with special lubricant for use where processing is demanding, but mechanical requirements are lower. Minimizes friction, stick-slip and squeaking in contact with plastic surfaces.

Tribological grades

Ultraform® tribological grades are suitable for plastic components in applications where optimized sliding and/or abrasion characteristics are necessary.

N2310 P AT	Standard injection-molding grade with special lubricant. Extremely low coefficient of friction and sliding abrasion when combined with smooth metal surfaces (low roughness).
S2320 TRE AT	Free-flowing tribological multipurpose grade. Suitable for tribological systems where the part is in contact with metal or plastic counter materials.
S2320 003 TR R01 AT	Free-flowing, rapidly solidifying grade with special lubricant to minimize friction, stick-slip and squeaking.
W2310 TRX AT	Very free-flowing grade with special tribological modification to minimize friction, stick-slip and squeaking.
W2320 003 TR AT	Very free-flowing, rapid-solidifying grade with special lubricant for use where processing is demanding, but mechanical requirements are lower. Minimizes friction, stick-slip and squeaking in contact with plastic surfaces.

Biomass balance and LowPCF grades

In Ultraform®'s LowPCF and BMB solutions, the focus is on improved sustainability. LowPCF products are produced using 100 % green electricity, while BMB products are additionally certified according to ISCC PLUS. BMB/LowPCF products have identical properties to their corresponding unreinforced/reinforced brands.

H2320 006 BMB AT	High-molecular-weight grade with slightly increased flowability for injection molding of thickwalled molding. Same performance as our unreinforced grades with biomass balance benefit.
N2320 003 BMB AT	Rapid-solidifying standard grade for injection molding. Same performance as our unreinforced grades with biomass balance benefit.
S1320 003 BMB AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. Increased rigidity and heat resistance. Same performance as our unreinforced grades with biomass balance benefit.
S2320 003 BMB AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. Same performance as our unreinforced grades with biomass balance benefit.
W2320 003 BMB AT	Very free-flowing and rapid-solidifying grade for use where processing is demanding but mechanical requirements are lower. Same performance as our unreinforced grades with biomass balance benefit.
N2640 Z2 BMB AT	Elastomer-modified injection-molding grades with high-impact strength for clips, snap-on and fixing elements, and for components subject to impact stress, same performance as reinforced grades with biomass balance benefit.
N2640 Z6 BMB AT	Elastomer-modified injection-molding grade for applications requiring maximum impact strength together with low rigidity, same performance as reinforced grades with biomass balance benefit.
N2720 M210 BMB AT	Product with increased rigidity and strength together with good wear characteristics, same performance as reinforced grades with biomass balance benefit.
N2200 G23 BMB AT	10% GF reinforced POM; injection molding grade for parts requiring high rigidity, strength, and whiteness. Same performance as reinforced grades with biomass balance benefit.
N2200 G43 BMB AT	20% GF reinforced POM; injection-molding grade for parts requiring high rigidity and strength along with good mold release. Food contact approved. Same performance as reinforced grades with biomass balance benefit.
N2200 G53 R01 BMB AT	25% GF reinforced POM; injection molding grade for parts requiring high rigidity and strength. Same performance as reinforced grades with biomass balance benefit.
N2320 003 LowPCF AT	Rapid-solidifying standard grade for injection molding. Same performance as our unreinforced grades with low product carbon footprint benefit.
S2320 003 LowPCF AT	Free-flowing, rapid-solidifying grade for thin-walled moldings that are difficult to produce by injection molding. Same performance as our unreinforced grades with low product carbon footprint.
W2320 003 LowPCF AT	Very free-flowing and rapid-solidifying grade for use where processing is demanding but mechanical requirements are lower. Same performance as our unreinforced grades with low product carbon footprint.



Ultraform® AT Grades

Unreinforced grades

Typical values for uncolored products at 23°C	Unit	Test method	H4320 AT
Product Features			
Abbreviation	–	–	POM
Density	kg/m³	ISO 1183	1,400
Water absorption, saturation in water at 23°C	%	similar to ISO 62	1.0
Moisture absorption, saturation under standard climatic cond. 23°C/50% r. h.	%	similar to ISO 62	0.25
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M, E
Melting point, DSC	°C	ISO 11357-1/-3	163
Melt volume rate MVR 190/2.16	cm³/10 min	ISO 1133	2.2
Melt flow rate MFR 190/2.16	g/10 min	ISO 1133	2.6
Melt temperature range, injection molding	°C	–	190 - 230
Mold temperature range	°C	–	60 - 120
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	2,400
Tensile stress at yield (v=50 mm/min)	MPa	ISO 527-1/-2	60
Tensile stress at break (v=5 mm/min)	MPa	ISO 527-1/-2	*
Elongation at yield	%	ISO 527-1/-2	11
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	31 (*)
Tensile creep modulus, 1,000 h	MPa	ISO 899-1	1,300
Charpy impact strength ²⁾	+23°C	ISO 179/1eU	280
Charpy impact strength ²⁾	-30°C	ISO 179/1eU	250
Charpy notched impact strength	+23°C	ISO 179/1eA	6.5
Charpy notched impact strength	-30°C	ISO 179/1eA	5.5
Izod notched impact strength	+23°C	ISO 180/A	6.5
Izod notched impact strength	-30°C	ISO 180/A	6
Ball indentation hardness H 358/30	MPa	ISO 2039-1	125
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8 MPa load (HDT A)	°C	ISO 75-1/-2	90
Vicat softening temperature VST/B/50	°C	ISO 306	150
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	120
Electrical properties			
Dielectric constant at 100 Hz/1 MHz	–	IEC 62631-2-1	3.8 (3.8)
Dissipation factor at 100 Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	10 (50)
Volume resistivity	Ω · cm	IEC 62631-3-1	10 ¹¹
Surface resistivity	Ω	IEC 62631-3-2	10 ¹³
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

H2320 006 AT	N2320 003 AT	N4320 003 AT	S1320 003 AT	S2320 003 AT	W2320 003 AT
POM	POM	POM	POM	POM	POM
1,410	1,410	1,410	1,410	1,410	1,410
0.9	0.9	0.9	0.9	0.9	0.8
0.2	0.2	0.2	0.2	0.2	0.2
M, E	M	M	M	M	M
165	166	165	171	167	166
2.9	7.5	7.5	11	11	25
3.4	8.8	8.8	12.9	13	29.4
190 - 230	190 - 230	190 - 230	190 - 230	190 - 230	190 - 230
60 - 120	60 - 120	60 - 120	60 - 120	60 - 120	60 - 120
2,600	2,700	2,600	3,000	2,700	2,850
62	64	62	67	64	65
*	*	*	*	*	*
11	10.7	10.5	10.5	10	8
30 (*)	32 (*)	30 (*)	25 (*)	29 (*)	24 (*)
1,300	1,400	1,400	1,450	1,300	1,350
270	270	300	230	250	190
260	250	250	210	230	190
6.5	6.5	6.5	6	6	4.5
5.5	5.5	6	5.5	5.5	4
6.5	6	7	5.5	5.5	5
7	5.5	6	5	5.5	5
135	135	135	150	145	145
–	–	–	–	–	–
–	–	–	–	–	–
95	95	95	100	100	100
150	166	150	150	150	150
100	100	100	100	100	100
120	110	110	110	110	110
3.8 (3.8)	3.8 (3.8)	3.8 (3.8)	3.7 (3.7)	3.8 (3.8)	3.8 (3.8)
10 (50)	10 (50)	10 (50)	20 (50)	10 (50)	10 (50)
10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹
10 ¹³	10 ¹³	10 ¹³	10 ¹⁵	10 ¹³	10 ¹³
600	600	600	600	600	600
600	600	600	600	600	600

Ultraform® AT Grades

Reinforced grades

Typical values for uncolored products at 23°C	Unit	Test method	N2200 G23 AT
Product Features			
Abbreviation	–	–	POM-GF10
Density	kg/m³	ISO 1183	1,440
Water absorption, saturation in water at 23°C	%	similar to ISO 62	–
Moisture absorption, saturation under standard climatic cond. 23°C/50% r.h.	%	similar to ISO 62	–
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M
Melting point, DSC	°C	ISO 11357-1/-3	165
Melt volume rate MVR 190/2.16	cm³/10min	ISO 1133	6
Melt flow rate MFR 190/2.16	g/10 min	ISO 1133	–
Melt temperature range, injection molding	°C	–	190 - 220
Mold temperature range	°C	–	60 - 120
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	5,000
Tensile stress at yield (v=50mm/min)	MPa	ISO 527-1/-2	*
Tensile stress at break (v=5mm/min)	MPa	ISO 527-1/-2	92
Elongation at yield	%	ISO 527-1/-2	*
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	*(3.3)
Tensile creep modulus, 1,000h	MPa	ISO 899-1	–
Charpy impact strength ²⁾ +23°C	kJ/m²	ISO 179/1eU	50
Charpy impact strength ²⁾ -30°C	kJ/m²	ISO 179/1eU	–
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	5.5
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	–
Izod notched impact strength +23°C	kJ/m²	ISO 180/A	6
Izod notched impact strength -30°C	kJ/m²	ISO 180/A	–
Ball indentation hardness H 358/30	MPa	ISO 2039-1	–
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8MPa load (HDT A)	°C	ISO 75-1/-2	–
Vicat softening temperature VST/B/50	°C	ISO 306	–
Max. service temperature, up to a few hours ¹⁾	°C	–	–
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	–
Electrical properties			
Dielectric constant at 100Hz/1 MHz	–	IEC 62631-2-1	– (–)
Dissipation factor at 100Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	– (–)
Volume resistivity	Ω·cm	IEC 62631-3-1	–
Surface resistivity	Ω	IEC 62631-3-2	–
Comparative tracking index CTI, test solution A	–	IEC 60112	–
Comparative tracking index CTI, test solution B	–	IEC 60112	–

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

N2200 G43 AT	N2200 G43 R01 AT	N2200 G53 AT	N2200 G53 R01 AT	N2720 M210 AT	N2720 M63 AT
POM-GF20	POM-GF20	POM-GF25	POM-GF25	POM-MD10	POM-MD30
1,550	1,540	1,580	1,580	1,490	1,650
1.0	–	1.1	1.1	0.8	0.9
0.2	–	0.2	0.2	0.2	0.15
M	M	M	M	M	M
165	164	168	166	166	167
4	4	4	4.5	7	3.8
–	–	5.5	–	8.8	6.5
190 - 220	190 - 220	190 - 220	190 - 230	190 - 230	190 - 220
60 - 120	60 - 120	60 - 120	60 - 120	60 - 120	60 - 120
7,500	7,700	8,500	9,000	3,800	7,000
*	*	*	*	63	75
115	130	125	160	*	*
*	*	*	*	9.5	5
* (3)	* (2.9)	* (2.5)	* (3.1)	18 (*)	6 (*)
–	–	–	–	–	2,750
50	58	45	65	90	55
50	–	50	–	90	55
7.5	9	8	11.5	3.5	3.5
7.5	–	7.5	–	3.5	3
5	8	7.8	–	–	3.5
5	–	8.7	–	–	–
164	–	–	–	145	–
–	–	185	–	–	190
–	–	–	–	–	–
161	160	163	160	115	140
160	–	160	–	150	155
110	–	110	–	100	110
50	–	40	–	80	45
4 (4.1)	– (–)	4 (4)	– (–)	3.9 (3.8)	4 (4.2)
40 (70)	– (–)	40 (70)	– (–)	50 (60)	70 (50)
10 ¹⁰	–	10 ¹⁰	–	10 ¹⁰	10 ¹⁰
10 ¹⁴	–	10 ¹⁴	–	10 ¹⁴	10 ¹⁴
600	–	600	–	600	600
600	–	600	–	600	600

Ultraform® AT Grades

Impact-modified grades

Typical values for uncolored products at 23°C	Unit	Test method	N2640 Z2 AT
Product Features			
Abbreviation	–	–	POM+PUR
Density	kg/m³	ISO 1183	1,380
Water absorption, saturation in water at 23°C	%	similar to ISO 62	1.0
Moisture absorption, saturation under standard climatic cond. 23°C/50% r.h.	%	similar to ISO 62	0.25
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M
Melting point, DSC	°C	ISO 11357-1/-3	166
Melt volume rate MVR 190/2.16	cm³/10min	ISO 1133	7
Melt flow rate MFR 190/2.16	g/10min	ISO 1133	8.1
Melt temperature range, injection molding	°C	–	190 - 215
Mold temperature range	°C	–	60 - 80
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	2,000
Tensile stress at yield (v=50mm/min)	MPa	ISO 527-1/-2	51
Tensile stress at break (v=5mm/min)	MPa	ISO 527-1/-2	*
Elongation at yield	%	ISO 527-1/-2	13
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	40 (*)
Tensile creep modulus, 1,000h	MPa	ISO 899-1	–
Charpy impact strength ²⁾ +23°C	kJ/m²	ISO 179/1eU	NC
Charpy impact strength ²⁾ -30°C	kJ/m²	ISO 179/1eU	–
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	15
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	7
Izod notched impact strength +23°C	kJ/m²	ISO 180/A	13
Izod notched impact strength -30°C	kJ/m²	ISO 180/A	7
Ball indentation hardness H 358/30	MPa	ISO 2039-1	105
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8MPa load (HDT A)	°C	ISO 75-1/-2	85
Vicat softening temperature VST/B/50	°C	ISO 306	140
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	130
Electrical properties			
Dielectric constant at 100Hz/1 MHz	–	IEC 62631-2-1	4 (4)
Dissipation factor at 100Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	100 (140)
Volume resistivity	Ω·cm	IEC 62631-3-1	10 ¹⁰
Surface resistivity	Ω	IEC 62631-3-2	10 ¹⁴
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

N2800 Z2 AT	N2640 Z4 AT	N2800 Z4 AT	N2640 Z6 AT	N2800 Z6 AT	N2644 Z9 AT
POM+PUR	POM+PUR	POM+PUR	POM+PUR	POM+PUR	POM+PUR
1,380	1,360	1,360	1,330	1,340	1,280
1.0	1.0	1.0	1.1	1.1	1.1
0.25	0.25	0.25	0.3	0.3	0.3
M	M	M	M	M	M
166	166	166	165	166	164
7	5.5	6	6	6	12
–	6.4	–	7	–	–
190 - 215	190 - 215	190 - 215	190 - 215	190 - 215	180 - 210
60 - 80	60 - 80	60 - 80	60 - 80	60 - 80	40 - 80
2,000	1,650	1,650	1,400	1,300	770
52	45	46	38	38	23
*	*	*	*	*	*
13	16	16	18	20	32
40 (*)	>50 (*)	35 (*)	>50 (*)	>50 (*)	>50 (*)
–	–	–	–	–	–
N	N	N	N	N	N
–	N	–	NC	–	NC
14	20	16	20	19	25
–	8	–	9	–	5
–	17	–	19	–	15.5
–	8	–	10	–	5.5
–	85	–	60	–	–
–	–	–	–	–	–
–	–	–	–	–	27
78	75	72	70	70	60
–	130	–	110	–	–
–	100	–	100	–	100
–	130	–	140	–	140
– (–)	4.2 (4.2)	– (–)	4.5 (4.3)	– (–)	5.1 (4.9)
– (–)	110 (190)	– (–)	100 (250)	– (–)	70 (350)
–	10 ⁹	–	10 ⁹	–	10 ⁹
–	10 ¹⁴	–	10 ¹²	–	10 ¹³
–	600	–	600	–	600
–	600	–	600	–	600

Ultraform® AT Grades

Low and very low-emission grades

Typical values for uncolored products at 23°C		Unit	Test method	N2320 003 LEV AT
Product Features				
Abbreviation		–	–	POM
Density		kg/m³	ISO 1183	1,410
Water absorption, saturation in water at 23°C		%	similar to ISO 62	0.9
Moisture absorption, saturation under standard climatic cond. 23°C/50% r.h.		%	similar to ISO 62	0.2
Processing				
Injection molding (M), extrusion (E), blow molding (B)		–	–	M
Melting point, DSC		°C	ISO 11357-1/-3	166
Melt volume rate MVR 190/2.16		cm³/10min	ISO 1133	7.5
Melt flow rate MFR 190/2.16		g/10min	ISO 1133	8.8
Melt temperature range, injection molding		°C	–	190 - 220
Mold temperature range		°C	–	60 - 120
Mechanical properties				
Tensile modulus		MPa	ISO 527-1/-2	2,700
Tensile stress at yield (v=50mm/min)		MPa	ISO 527-1/-2	64
Tensile stress at break (v=5mm/min)		MPa	ISO 527-1/-2	*
Elongation at yield		%	ISO 527-1/-2	11
Nominal elongation at break/elongation at break*		%	ISO 527-1/-2	30 (*)
Tensile creep modulus, 1,000h		MPa	ISO 899-1	1,400
Charpy impact strength ²⁾	+23°C	kJ/m²	ISO 179/1eU	330
Charpy impact strength ²⁾	-30°C	kJ/m²	ISO 179/1eU	270
Charpy notched impact strength	+23°C	kJ/m²	ISO 179/1eA	6.5
Charpy notched impact strength	-30°C	kJ/m²	ISO 179/1eA	5.5
Izod notched impact strength	+23°C	kJ/m²	ISO 180/A	6
Izod notched impact strength	-30°C	kJ/m²	ISO 180/A	5.5
Ball indentation hardness H 358/30		MPa	ISO 2039-1	135
Ball indentation hardness H 961/30		MPa	ISO 2039-1	–
Ball indentation hardness H 132/30		MPa	ISO 2039-1	–
Thermal properties				
Heat deflection temp. under 1.8MPa load (HDT A)		°C	ISO 75-1/-2	95
Vicat softening temperature VST/B/50		°C	ISO 306	150
Max. service temperature, up to a few hours ¹⁾		°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C		10 ⁻⁵ /K	ISO 11359-1/-2	110
Electrical properties				
Dielectric constant at 100Hz/1 MHz		–	IEC 62631-2-1	3.8 (3.8)
Dissipation factor at 100Hz/1 MHz		10 ⁻⁴	IEC 62631-2-1	10 (50)
Volume resistivity		Ω·cm	IEC 62631-3-1	10 ¹¹
Surface resistivity		Ω	IEC 62631-3-2	10 ¹³
Comparative tracking index CTI, test solution A		–	IEC 60112	600
Comparative tracking index CTI, test solution B		–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

³⁾ Preliminary data

⁴⁾ highly dependent on the processing conditions

⁵⁾ ISO 3915 4-Point-Measurement

N2320 003 XLEV AT	N2320 0035 LEV AT	S2320 003 LEV AT	W2320 003 LEV AT	W2320 U035 LEV AT	N2640 Z2 LEV2 AT	N2640 Z4 LEV2 AT
POM	POM	POM	POM	POM	POM+PUR	POM+PUR
1,410	1,410	1,410	1,410	1,410	1,380	1,360
0.9	0.9	0.9	0.8	0.8	1.0	1.0
0.2	0.2	0.2	0.2	0.2	0.25	0.25
M	M	M	M	M	M	M
166	166	167	166	166	168	167
7.5	7.5	11	25	25	8	8
8.8	8.8	13	29.4	29.4	8.1	6.4
180-200	190-220	190-220	190-220	190-220	190-215	190-215
60-120	60-120	60-120	60-120	60-120	60-80	60-80
2,700	2,700	2,700	2,850	2,800	1,980	1,650
63	63	64	65	65	51	45
*	*	*	*	*	*	*
10.5	11	10	8	8.5	13	16
30 (*)	28 (*)	29 (*)	24 (*)	25 (*)	35 (*)	44 (*)
1,400	1,200	1,300	1,350	1,300	–	–
280	260	250	190	200	–	–
220	250	230	190	190	–	–
6.5	6.5	6	4.5	4	6.5	9
5.5	5.5	5.5	4	4	–	–
7	6.5	5.5	5	–	7.5	9
6	6	5.5	5	–	7	8
135	140	145	145	145	105	85
–	–	–	–	–	–	–
–	–	–	–	–	–	–
92	95	100	100	95	85	75
150	150	150	150	150	140	130
100	100	100	100	100	100	100
110	110	110	110	110	130	130
3.8 (3.8)	3.9 (3.8)	3.8 (3.8)	3.8 (3.8)	3.9 (3.8)	4 (4)	4.2 (4.2)
10 (50)	30 (60)	10 (50)	10 (50)	30 (60)	100 (140)	110 (190)
10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹	10 ¹⁰	10 ⁹
10 ¹³	10 ¹⁵	10 ¹³	10 ¹³	10 ¹⁵	10 ¹⁴	10 ¹⁴
600	600	600	600	600	600	600
600	600	600	600	600	600	600

Ultraform® AT Grades

Grades for medical applications

Typical values for uncolored products at 23°C

Unit

Test method

N2320 003 PRO AT

Product Features			
Abbreviation	–	–	POM
Density	kg/m³	ISO 1183	1,410
Water absorption, saturation in water at 23°C	%	similar to ISO 62	0.9
Moisture absorption, saturation under standard climatic cond. 23°C/50% r. h.	%	similar to ISO 62	0.2

Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M
Melting point, DSC	°C	ISO 11357-1/-3	166
Melt volume rate MVR 190/2.16	cm³/10 min	ISO 1133	7.5
Melt flow rate MFR 190/2.16	g/10 min	ISO 1133	8.8
Melt temperature range, injection molding	°C	–	190 - 230
Mold temperature range	°C	–	60 - 120

Mechanical properties				
Tensile modulus		MPa	ISO 527-1/-2	2,700
Tensile stress at yield (v=50 mm/min)		MPa	ISO 527-1/-2	64
Tensile stress at break (v=5 mm/min)		MPa	ISO 527-1/-2	*
Elongation at yield		%	ISO 527-1/-2	10.7
Nominal elongation at break/elongation at break*		%	ISO 527-1/-2	32 (*)
Tensile creep modulus, 1,000 h		MPa	ISO 899-1	1,400
Charpy impact strength ²⁾	+23°C	kJ/m²	ISO 179/1eU	270
Charpy impact strength ²⁾	-30°C	kJ/m²	ISO 179/1eU	250
Charpy notched impact strength	+23°C	kJ/m²	ISO 179/1eA	6.5
Charpy notched impact strength	-30°C	kJ/m²	ISO 179/1eA	5.5
Izod notched impact strength	+23°C	kJ/m²	ISO 180/A	6
Izod notched impact strength	-30°C	kJ/m²	ISO 180/A	5.5
Ball indentation hardness H 358/30		MPa	ISO 2039-1	135
Ball indentation hardness H 961/30		MPa	ISO 2039-1	–
Ball indentation hardness H 132/30		MPa	ISO 2039-1	–

Thermal properties			
Heat deflection temp. under 1.8 MPa load (HDT A)	°C	ISO 75-1/-2	95
Vicat softening temperature VST/B/50	°C	ISO 306	150
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	110

Electrical properties			
Dielectric constant at 100 Hz/1 MHz	–	IEC 62631-2-1	3.8 (3.8)
Dissipation factor at 100 Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	10 (50)
Volume resistivity	Ω · cm	IEC 62631-3-1	10 ¹¹
Surface resistivity	Ω	IEC 62631-3-2	10 ¹³
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

S1320 003 PRO AT	S2320 003 PRO AT	S2320 003 PRO TR AT	W2320 003 PRO AT	W2320 003 PRO TR AT
POM	POM	POM	POM	POM
1,410	1,410	1,400	1,410	1,380
0.9	0.9	0.8	0.8	0.8
0.2	0.2	0.2	0.2	0.2
M	M	M	M	M
171	167	167	166	167
11	11	11	25	25
12.9	13	–	29.4	29.4
190-230	190-230	190-230	190-230	190-230
60-120	60-120	60-120	60-120	60-120
3,000	2,700	2,600	2,850	2,500
67	64	62	65	50
*	*	*	*	*
10.5	10	9	8	5.5
25 (*)	29 (*)	35 (*)	24 (*)	37 (*)
1,450	1,300	–	1,350	–
230	250	180	190	110
210	230	145	190	95
6	6	5.5	4.5	5
5.5	5.5	6	4	4.4
5.5	5.5	7	5	5
5	5.5	6.5	5	5
150	145	135	145	125
–	–	–	–	–
–	–	–	–	–
100	100	100	100	92
150	150	–	150	–
100	100	100	100	100
110	110	120	110	125
3.7 (3.7)	3.8 (3.8)	3.6 (3.6)	3.8 (3.8)	3.5 (3.5)
20 (50)	10 (50)	11 (56)	10 (50)	9 (55)
10 ¹¹	10 ¹¹	10 ¹²	10 ¹¹	10 ¹¹
10 ¹⁵	10 ¹³	10 ¹⁵	10 ¹³	10 ¹⁴
600	600	600	600	600
600	600	600	600	600

Ultraform® AT Grades

Tribological grades

Typical values for uncolored products at 23°C	Unit	Test method	N2310 P AT
Product Features			
Abbreviation	–	–	POM
Density	kg/m³	ISO 1183	1,410
Water absorption, saturation in water at 23°C	%	similar to ISO 62	0.9
Moisture absorption, saturation under standard climatic cond. 23°C/50% r. h.	%	similar to ISO 62	0.2
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M
Melting point, DSC	°C	ISO 11357-1/-3	166
Melt volume rate MVR 190/2.16	cm³/10min	ISO 1133	7.5
Melt flow rate MFR 190/2.16	g/10 min	ISO 1133	9
Melt temperature range, injection molding	°C	–	190 - 230
Mold temperature range	°C	–	60 - 120
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	2,600
Tensile stress at yield (v=50mm/min)	MPa	ISO 527-1/-2	61
Tensile stress at break (v=5mm/min)	MPa	ISO 527-1/-2	*
Elongation at yield	%	ISO 527-1/-2	10
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	31 (*)
Tensile creep modulus, 1,000h	MPa	ISO 899-1	1,300
Charpy impact strength ²⁾ +23°C	kJ/m²	ISO 179/1eU	200
Charpy impact strength ²⁾ -30°C	kJ/m²	ISO 179/1eU	180
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	6
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	5
Izod notched impact strength +23°C	kJ/m²	ISO 180/A	6.5
Izod notched impact strength -30°C	kJ/m²	ISO 180/A	6
Ball indentation hardness H 358/30	MPa	ISO 2039-1	135
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8MPa load (HDT A)	°C	ISO 75-1/-2	90
Vicat softening temperature VST/B/50	°C	ISO 306	150
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	110
Electrical properties			
Dielectric constant at 100Hz/1 MHz	–	IEC 62631-2-1	3.8 (3.8)
Dissipation factor at 100Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	10 (50)
Volume resistivity	Ω·cm	IEC 62631-3-1	10 ¹²
Surface resistivity	Ω	IEC 62631-3-2	10 ¹²
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

S2320 TRE AT	S2320 003 TR R01 AT	W2310 TRX AT	W2320 003 TR AT
POM+PE	POM	POM	POM
1,370	1,400	1,390	1,380
0.8	–	0.8	0.8
0.2	–	0.2	0.2
M	M	M	M
167	167	167	167
10	13	25	25
–	–	–	29.4
190-220	190-230	180-230	190-230
60-120	60-120	60-120	60-120
2,500	2,400	2,700	2,500
56	45	57	50
*	*	*	*
9	6	10	5.5
24 (*)	45 (*)	13 (*)	37 (*)
–	–	–	–
90	110	75	110
–	–	–	95
3.5	4.5	3.5	5
3.5	4.5	3.5	4.4
–	5.5	–	5
–	–	–	5
–	–	–	125
–	–	–	–
–	–	–	–
87	86	90	92
–	–	–	–
100	–	100	100
–	–	–	125
– (-)	– (-)	– (-)	3.5 (3.5)
– (-)	– (-)	– (-)	9 (55)
–	–	–	10 ¹¹
–	–	–	10 ¹⁴
–	–	–	600
–	–	–	600

Ultraform® AT Grades

Biomass balance and LowPCF grades

Typical values for uncolored products at 23°C	Unit	Test method	H2320 006 BMB AT
Product Features			
Abbreviation	–	–	POM
Density	kg/m³	ISO 1183	1,410
Water absorption, saturation in water at 23°C	%	similar to ISO 62	0.9
Moisture absorption, saturation under standard climatic cond. 23°C/50% r. h.	%	similar to ISO 62	0.2
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M, E
Melting point, DSC	°C	ISO 11357-1/-3	165
Melt volume rate MVR 190/2.16	cm³/10 min	ISO 1133	2.9
Melt flow rate MFR 190/2.16	g/10 min	ISO 1133	3.4
Melt temperature range, injection molding	°C	–	190 - 230
Mold temperature range	°C	–	60 - 120
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	2,600
Tensile stress at yield (v=50 mm/min)	MPa	ISO 527-1/-2	62
Tensile stress at break (v=5 mm/min)	MPa	ISO 527-1/-2	*
Elongation at yield	%	ISO 527-1/-2	11
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	30 (*)
Tensile creep modulus, 1,000 h	MPa	ISO 899-1	1,300
Charpy impact strength ²⁾ +23°C	kJ/m²	ISO 179/1eU	270
Charpy impact strength ²⁾ -30°C	kJ/m²	ISO 179/1eU	260
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	6.5
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	5.5
Izod notched impact strength +23°C	kJ/m²	ISO 180/A	6.5
Izod notched impact strength -30°C	kJ/m²	ISO 180/A	7
Ball indentation hardness H 358/30	MPa	ISO 2039-1	135
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8 MPa load (HDT A)	°C	ISO 75-1/-2	95
Vicat softening temperature VST/B/50	°C	ISO 306	150
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	120
Electrical properties			
Dielectric constant at 100 Hz/1 MHz	–	IEC 62631-2-1	3.8 (3.8)
Dissipation factor at 100 Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	10 (50)
Volume resistivity	Ω · cm	IEC 62631-3-1	10 ¹¹
Surface resistivity	Ω	IEC 62631-3-2	10 ¹³
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

N2320 003 BMB AT	S1320 003 BMB AT	S2320 003 BMB AT	W2320 003 BMB AT
POM	POM	POM	POM
1,410	1,410	1,410	1,410
0.9	0.9	0.9	0.8
0.2	0.2	0.2	0.2
M	M	M	M
166	171	167	166
7.5	11	11	25
8.8	12.9	13	29.4
190 - 230	190 - 230	190 - 230	190 - 230
60 - 120	60 - 120	60 - 120	60 - 120
2,700	3,000	2,700	2,850
64	67	64	65
*	*	*	*
10.7	10.5	10	8
32 (*)	25 (*)	29 (*)	24 (*)
1,400	1,450	1,300	1,350
270	230	250	190
250	210	230	190
6.5	6	6	4.5
5.5	5.5	5.5	4
6	5.5	5.5	5
5.5	5	5.5	5
135	150	145	145
–	–	–	–
–	–	–	–
95	100	100	100
166	150	150	150
100	100	100	100
110	110	110	110
3.8 (3.8)	3.7 (3.7)	3.8 (3.8)	3.8 (3.8)
10 (50)	20 (50)	10 (50)	10 (50)
10 ¹¹	10 ¹¹	10 ¹¹	10 ¹¹
10 ¹³	10 ¹⁵	10 ¹³	10 ¹³
600	600	600	600
600	600	600	600

Ultraform® AT Grades

Biomass balance grades

Typical values for uncolored products at 23°C	Unit	Test method	N2640 Z2 BMB AT
Product Features			
Abbreviation	–	–	POM+PUR
Density	kg/m³	ISO 1183	1,380
Water absorption, saturation in water at 23°C	%	similar to ISO 62	1.0
Moisture absorption, saturation under standard climatic cond. 23°C/50% r.h.	%	similar to ISO 62	0.25
Processing			
Injection molding (M), extrusion (E), blow molding (B)	–	–	M
Melting point, DSC	°C	ISO 11357-1/-3	166
Melt volume rate MVR 190/2.16	cm³/10min	ISO 1133	7
Melt flow rate MFR 190/2.16	g/10min	ISO 1133	8.1
Melt temperature range, injection molding	°C	–	190 - 215
Mold temperature range	°C	–	60 - 80
Mechanical properties			
Tensile modulus	MPa	ISO 527-1/-2	2,000
Tensile stress at yield (v=50mm/min)	MPa	ISO 527-1/-2	51
Tensile stress at break (v=5mm/min)	MPa	ISO 527-1/-2	*
Elongation at yield	%	ISO 527-1/-2	11
Nominal elongation at break/elongation at break*	%	ISO 527-1/-2	40 (*)
Tensile creep modulus, 1,000h	MPa	ISO 899-1	–
Charpy impact strength ²⁾ +23°C	kJ/m²	ISO 179/1eU	NC
Charpy impact strength ²⁾ -30°C	kJ/m²	ISO 179/1eU	–
Charpy notched impact strength +23°C	kJ/m²	ISO 179/1eA	13
Charpy notched impact strength -30°C	kJ/m²	ISO 179/1eA	7
Izod notched impact strength +23°C	kJ/m²	ISO 180/A	10
Izod notched impact strength -30°C	kJ/m²	ISO 180/A	7
Ball indentation hardness H 358/30	MPa	ISO 2039-1	105
Ball indentation hardness H 961/30	MPa	ISO 2039-1	–
Ball indentation hardness H 132/30	MPa	ISO 2039-1	–
Thermal properties			
Heat deflection temp. under 1.8MPa load (HDT A)	°C	ISO 75-1/-2	85
Vicat softening temperature VST/B/50	°C	ISO 306	140
Max. service temperature, up to a few hours ¹⁾	°C	–	100
Coeff. of linear thermal expansion, long. (23-55)°C	10 ⁻⁵ /K	ISO 11359-1/-2	130
Electrical properties			
Dielectric constant at 100Hz/1 MHz	–	IEC 62631-2-1	4 (4)
Dissipation factor at 100Hz/1 MHz	10 ⁻⁴	IEC 62631-2-1	100 (140)
Volume resistivity	Ω·cm	IEC 62631-3-1	10 ¹⁰
Surface resistivity	Ω	IEC 62631-3-2	10 ¹⁴
Comparative tracking index CTI, test solution A	–	IEC 60112	600
Comparative tracking index CTI, test solution B	–	IEC 60112	600

¹⁾ Known values for parts that have to withstand this temperature repeatedly for several hours over the course of years of use, presupposing proper shaping and processing of the material.

²⁾ N = not broken

N2640 Z6 BMB AT	N2720 M210 BMB AT	N2200 G23 BMB AT	N2200 G43 BMB AT	N2200 G53 R01 BMB AT
POM+PUR	POM-M10	POM-GF10	POM-GF20	POM-GF25
1,330	1,490	1,440	1,550	1,580
1.1	0.8	–	1.0	1.1
0.3	0.2	–	0.2	0.2
M	M	M	M	M
165	166	165	165	166
4.5	7	6	4	4.5
5.2	8.8	–	–	–
190 - 215	190 - 230	190 - 220	190 - 220	190 - 230
60 - 80	60 - 120	60 - 120	60 - 120	60 - 120
1,400	3,800	5,000	7,500	9,000
37	63	*	*	*
*	*	92	115	160
17	9.5	*	*	*
>50 (*)	18 (*)	* (3.3)	* (3)	* (3.1)
–	–	–	–	–
N	90	42	50	65
NC	90	–	50	–
18	3.5	5.3	7.5	11.5
9	3.5	–	7.5	–
15	–	–	5	–
10	–	–	5	–
60	145	–	164	–
–	–	–	–	–
–	–	–	–	–
70	115	–	161	164
110	150	–	160	–
100	100	–	110	–
140	80	–	50	32
4.5 (4.3)	3.9 (3.8)	– (–)	4 (4.1)	– (70)
100 (250)	50 (60)	– (–)	40 (70)	– (70)
10 ¹⁰	10 ¹⁰	–	10 ¹⁰	10 ¹²
10 ¹²	10 ¹⁴	–	10 ¹⁴	10 ¹⁴
600	600	–	600	600
600	600	–	600	–

Nomenclature

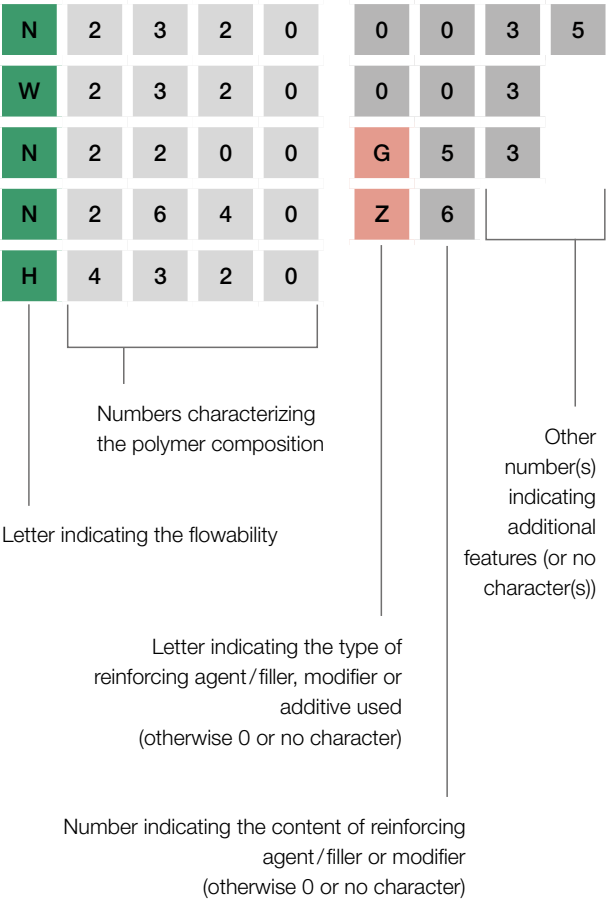
Structure

The name of Ultraform® commercial products generally follows the scheme below:

Ultraform®	Technical ID	Suffixes	Color
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Technical ID

The technical ID is made up of a series of letters and numbers indicating the melt flow rate, the types of reinforcing agents, fillers, modifiers, or additives used, their content in the material, and special features where applicable. The following system is used for most products:



Letters indicating the melt flow rate

The melt flow rate corresponds to the position of the letter in the alphabet: the later the letter appears in the alphabet, the higher the melt flow rate. The letters H, N, S and W are most commonly used.

The following applies:

- H lowest flow rate, lowest MVR value
- W highest flow rate, highest MVR value

Letters indicating the type of reinforcing agent, filler, modifier or additive used

- G Glass fibers
- U UV-stabilized
- M Mineral
- Z TPU impact modified
- P Special lubricant

Indices describing the content of reinforcing agents, fillers or modifiers

The numbers 2, 4, 5, 6 and 9 are most commonly used. The higher the number, the higher the content.

The following rule of thumb applies:

- 2 approx. 10 % by mass
- 4 approx. 20 % by mass
- 5 approx. 25 % by mass
- 6 approx. 30 % by mass
- 9 approx. 45 % by mass

Suffixes

Suffixes are optionally used to indicate specific processing or application-related properties. They are frequently acronyms whose letters are derived from the English term.

Examples of suffixes:

BMB	Bio Mass Balanced
LEV	Low emission version; low-odor
LowPCF	Low Product Carbon Footprint
PRO	Profile covered raw materials only; meets specific regulatory requirements and needs for medical applications
TR	Tribological modified
XLEV	Very low emission version

Color

The color is generally made up of a color name and a color number.

Examples of colors:

Uncolored	
Black 00120	
Black 00140	(for products modified with TPU)

Selected Product Literature for Ultraform®:

- Ultraform® – Product Brochure
- Ultraform® – Product Range
- Ultradur®, Ultramid® and Ultraform® – Resistance to Chemicals
- Engineering Plastics for Medical Solutions – Ultraform® PRO (POM) and Ultramid® PRO (PBT)
- Ultraform® Sustainable Solutions for a Better Future



PACIFIC – The **automated platform solution** streamlines the provision and receipt of **Product Carbon Footprint (PCF) data across the entire value chain**, significantly **reducing manual work**. It translates the benefits of BASF's SCOTT PCF calculation tool to the n-Tier chain, ensuring **trust-worthy and immutable data exchange** for seamless sharing with partners. Additionally, this solution can be integrated with other systems within the **Catena-X ecosystem**.

Note

The data contained in this publication is based on our current knowledge and experience. Considering the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (September 2025)

Further information on Ultraform® can be found on the internet:

www.ultraform.basf.com

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