

Makrolon® 2408

Grades / Medical devices

ISO Shortname

MVR (300 °C/1.2 kg) 19 cm³/10 min; medical devices; suitable for ETO and steam sterilization at 121 °C; biocompatible according to many ISO 10993-1 test requirements; low viscosity; injection molding - melt temperature 280 - 320 °C; available in color code 000000 only

ISO 7391-PC,M,(,,)-18-9

Bit Strain practical experience practical experience Melt mass-flow rate 300 °C, 12 kg g/10 min ISO 1133 20 Methanization properties (23 °C/50 % r. h.) Immini MPa ISO 527-1, -2 2350 C Yield stress 50 mm/min MPa ISO 527-1, -2 63 C Yield stress 50 mm/min % ISO 527-1, -2 63 Strain at break 50 mm/min % ISO 527-1, -2 70 Strain at break 50 mm/min % ISO 527-1, -2 70 Strain at break 50 mm/min % ISO 527-1, -2 120 C Tonsile creep modulus 1 h MPa ISO 527-1, -2 120 C Tonsile creep modulus 100 h MPa ISO 178 2200 Flexural strength 2 mm/min MPa ISO 178 70 Flexural strength 2 mm/min MPa ISO 178 70 Flexural strength 2 mm/min MPa ISO 178-16U N C Tonsprignodi strength 30 °C kJm² <th>rty</th> <th>Test Condition</th> <th>Unit</th> <th>Standard</th> <th>typical Value</th>	rty	Test Condition	Unit	Standard	typical Value
[Mit volume-flow rate 300 °C, 12 kg cm/10 min ISO 1133 19 CM dolding shrinkage, parallel 656602 mm, 500 bar % ISO 294-4 0.65 Molding shrinkage, normal 656602 mm, 500 bar % ISO 294-4 0.65 Molding shrinkage, parallel/normal Value range based on general processing % ISO 2577 0.5 - 0. Met mass-flow rate 300 °C; 1.2 kg g110 min ISO 1133 20 Methand-lap roperties (23 °C50 % r. h.) Cl Tensile modulus 1 mm/min MPa ISO 527.12 .65 Q Vield strates 50 mm/min MPa ISO 527.12 .63 Q Vield strates 50 mm/min % ISO 527.12 .70 Strass at break 50 mm/min % ISO 527.12 .70 Strass at break 50 mm/min % ISO 527.12 .70 Strass at break 50 mm/min % ISO 527.12 .70 G tanala creap modulus 1 h MPa ISO 689.1 .2000 C tanala creap modulus 2 mm/min	al properties				
C Moding shrinkage, normal B0x80x2 mm; 500 bar % ISO 294-4 0.65 Moding shrinkage, normal Value range based on general metalical experience % b.o. ISO 2577 0.5 - 0. Meth mass-flow rate 300 °C, 1.2 kg g/10 min ISO 133 20 Meth mass-flow rate 300 °C, 1.2 kg g/10 min ISO 133 20 G Tansile modulus 1 mm/min MPa ISO 5271-2 65 G Yield stress 50 mm/min % ISO 5271-2 65 G Vield strain at toreak 50 mm/min % ISO 5271-2 70 Stress at break 50 mm/min % ISO 5271-2 70 Stress at break 50 mm/min % ISO 5271-2 70 Stress at break 50 mm/min % ISO 5271-2 70 Stress at break 50 mm/min % ISO 5271-2 70 Stress at break 50 mm/min % ISO 5271-2 70 G trassit group dulus 1 h MPa ISO 5271-2 70 G tras		300 °C; 1.2 kg	cm ³ /10 min	ISO 1133	19
Cholding shrinkage, normal 60x60x2 mm; 500 bar % 180 294.4 0.68 Moding shrinkage, parallel/normal Value range based on general markade alexatione % b.o. 180 2577 0.5 - 0. Met mass-flow rate 300 °C; 1.2 kg g/10 min ISO 1133 20 Mechanical properties (23 °C/50 % r. h.) C C 2.250 2.250 C Yield stress 50 mm/min MPa ISO 5271-2 6.5 C Yield stress 50 mm/min % ISO 5271-2 6.5 C Yield streak 50 mm/min % ISO 5271-2 7.0 Stress at break 50 mm/min % ISO 5271-2 7.0 Stress at break 50 mm/min % ISO 5271-2 7.0 Stress at break 50 mm/min MPa ISO 5271-2 7.0 Stress at break 50 mm/min MPa ISO 5271-2 7.0 Stress at break 50 mm/min MPa ISO 5271-2 7.0 Stress at break 50 mm/min MPa ISO 5271-2 1200	shrinkage, parallel	-	%	ISO 294-4	0.65
practical experience practical experience practical experience Meth mass-flow rate 300 °C; 12 kg gr10 min ISO 1133 20 Mechanical properties (23 °C50 % r. h.) 2350 2350 C Yield stress 50 mm/min MPa ISO 527.1, 2 63 C Yield stress 50 mm/min % ISO 527.1, 2 63 G Nominal strain at break 50 mm/min % ISO 527.1, 2 70 Strain at break 50 mm/min % ISO 527.1, 2 70 Strain at break 50 mm/min MPa ISO 527.1, 2 120 C Tansile creep modulus 1 h MPa ISO 592.1, 2 120 C Tansile creep modulus 100 h MPa ISO 699.1 2200 Plexural modulus 1000 h MPa ISO 178 70 Plexural strength 2 mm/min MPa ISO 178 70 Plexural strength 2 mm/min MPa ISO 178 70 Charpy inpact strength 30 °C kJ/m²		60x60x2 mm; 500 bar	%	ISO 294-4	0.65
L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L L	, shrinkage, parallel/normal		%	b.o. ISO 2577	0.5 - 0.7
C Tensile modulus 1 mm/min MPa 180 527-1;2 2350 C Yield stress 60 mm/min MPa 150 527-1;2 63 C Yield strain 50 mm/min % 150 527-1;2 63 Strain at break 50 mm/min % 150 527-1;2 63 Stress at break 50 mm/min MPa 150 527-1;2 70 Strain at break 50 mm/min MPa 150 527-1;2 120 C Tensile creep modulus 1 h MPa 150 527-1;2 120 C Tensile creep modulus 1 h MPa 150 178 2850 C Tensile creep modulus 2 mm/min MPa 150 178 2850 Flexural strength 2 mm/min MPa 150 178 96 Flexural strength 2 mm/min MPa 150 178 70 C Charpy impact strength 2 mm/min MPa 150 178 72 C Charpy impact strength 30 °C kJ/m² 150 179-16U N C Charpy impact strength -30 °C kJ/m²	iss-flow rate	300 °C; 1.2 kg	g/10 min	ISO 1133	20
C Tensile modulus 1 mm/min MPa 180 527-1;2 2350 C Yield stress 50 mm/min MPa 150 527-1;2 63 C Yield strain 50 mm/min % 150 527-1;2 63 Strain at break 50 mm/min % 150 527-1;2 63 Stress at break 50 mm/min MPa 150 527-1;2 70 Strain at break 50 mm/min MPa 150 527-1;2 120 C Tensile creep modulus 1 h MPa 150 527-1;2 120 C Tensile creep modulus 1 h MPa 150 178 2250 C Tensile creep modulus 1 mm/min MPa 150 178 2350 Flexural strength 2 mm/min MPa 150 178 2350 Flexural strength 2 mm/min MPa 150 178 70 C Charpy impact strength 2 mm/min MPa 150 178 72 C Charpy impact strength 30 °C kJ/m² 150 178-16U N C Charpy impact strength -30 °C kJ/m² <td>al properties (23 °C/50 % r. h.)</td> <td>Į</td> <td></td> <td></td> <td></td>	al properties (23 °C/50 % r. h.)	Į			
C Yield strain 50 mm/min % ISO 527-1-2 6.3 C Norminal strain at break 50 mm/min % ISO 527-1-2 > 50 Stress at break 50 mm/min MPa ISO 527-1-2 70 Strain at break 50 mm/min % bolt S0 527-1-2 120 C Tensile creep modulus 1h MPa ISO 527-1-2 120 C Tensile creep modulus 1h MPa ISO 527-1-2 120 C Tensile creep modulus 1h MPa ISO 527-1-2 120 C Tensile creep modulus 1000 h MPa ISO 527-1-2 120 Flexural strength 2 mm/min MPa ISO 178 230 Flexural strength 2 mm/min MPa ISO 178 70 Flexural strength 2 mm/min MPa ISO 178 70 C Charpy inpact strength 30° C KJ/m ² ISO 179-16U N C Charpy inpact strength -30° C KJ/m ² </td <td></td> <td>1 mm/min</td> <td>MPa</td> <td>ISO 527-1,-2</td> <td>2350</td>		1 mm/min	MPa	ISO 527-1,-2	2350
C Nominal strain at break S0 mm/min % ISO 527.1,-2 > 50 Stress at break 50 mm/min MPa ISO 527.1,-2 70 Strain at break 50 mm/min % b.o. ISO 527.1,-2 70 Strain at break 50 mm/min % b.o. ISO 527.1,-2 120 C Tensile creep modulus 1 h MPa ISO 899-1 2200 C Tensile creep modulus 1000 h MPa ISO 899-1 1900 Flexural strain at flexural strength 2 mm/min MPa ISO 178 2350 Flexural strain at flexural strength 2 mm/min % ISO 178 70 Flexural strain at flexural strength 2 mm/min MPa ISO 178 70 C Charpy inpact strength 23 °C k.l/m² ISO 179-16U N C Charpy inpact strength -60 °C k.l/m² ISO 7391/b.o. ISO 65P Charpy protoched inpact strength 23 °C; 3 mm k.l/m² ISO 7391/b.o. ISO 65P Charpy protoched inpac	ress	50 mm/min	MPa	ISO 527-1,-2	65
Stress at break 50 mm/min MPa ISO 527.1, 2 70 Strain at break 50 mm/min % b.o. ISO 527.1, 2 120 C Tensile creep modulus 1 h MPa ISO 899.1 2200 C Tensile creep modulus 1000 h MPa ISO 899.1 1900 Flexural strengt modulus 2 mm/min MPa ISO 178 2350 Flexural strength 2 mm/min MPa ISO 178 2350 Flexural strength and flexural strength 2 mm/min % ISO 178 70 C Charpy impact strength 23 °C kJ/m² ISO 178 72 C Charpy impact strength -30 °C kJ/m² ISO 179-16U N C Charpy impact strength -30 °C kJ/m² ISO 7391/b.o. ISO 65P Charpy nothed impact strength -30 °C, 3 mm kJ/m² ISO 7391/b.o. ISO 65P Charpy nothed impact strength -30 °C, 3 mm kJ/m² ISO 7391/b.o. ISO 180.A 15C C harpy nothed impact strength -30 °C, 3 mm kJ/m²	rain	50 mm/min	%	ISO 527-1,-2	6.3
Strain at break 50 mm/min % b.o. ISO 527-1,-2 120 C Tensile creep modulus 1 h MPa ISO 899-1 2200 C Tensile creep modulus 1000 h MPa ISO 899-1 1900 Flexural modulus 2 mm/min MPa ISO 178 266 Flexural strength 2 mm/min MPa ISO 178 96 Flexural strength 2 mm/min MPa ISO 178 7.0 Flexural strength 2 mm/min MPa ISO 178 7.0 C Charpy impact strength 30 °C kJ/m² ISO 178 72 C Charpy impact strength -30 °C kJ/m² ISO 179-1eU N C Charpy impact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P Charpy potched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Charpy potched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. I	I strain at break	50 mm/min	%	ISO 527-1,-2	> 50
C Tensile creep modulus 1 h MPa ISO 899-1 2200 C Tensile creep modulus 1000 h MPa ISO 899-1 1900 Flexural modulus 2 mm/min MPa ISO 178 2330 Flexural strength 2 mm/min MPa ISO 178 2350 Flexural strength 2 mm/min MPa ISO 178 7.0 Flexural strength 2 mm/min % ISO 178 7.0 Flexural strength 2 mm/min MPa ISO 178 7.0 C charpy impact strength 23 °C KJ/m ² ISO 178-1eU N C charpy impact strength -30 °C KJ/m ² ISO 179-1eU N C harpy inpact strength -60 °C KJ/m ² ISO 7391/b.o. ISO 65P C harpy notched impact strength -30 °C; 3 mm KJ/m ² ISO 7391/b.o. ISO 180-A 14C Izod notched impact strength 23 °C; 3 mm KJ/m ² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength 30 °C; 3 mm	at break	50 mm/min	MPa	ISO 527-1,-2	70
C Tensile creep modulus 1000 h MPa ISO 899-1 1900 Flexural modulus 2 mm/min MPa ISO 178 2350 Flexural strength 2 mm/min MPa ISO 178 2350 Flexural strength 2 mm/min MPa ISO 178 70 Flexural strength 2 mm/min % ISO 178 72 C Charpy impact strength 23 °C KJ/m² ISO 179-1eU N C Charpy impact strength -30 °C KJ/m² ISO 179-1eU N C Charpy impact strength -60 °C KJ/m² ISO 179-1eU N C Charpy impact strength -60 °C KJ/m² ISO 7391/b.o. ISO 65P C Charpy notched impact strength -30 °C; 3 mm KJ/m² ISO 7391/b.o. ISO 65P Izod notched impact strength -30 °C; 3 mm KJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm KJ/m² ISO 7391/b.o. ISO 180-A 15D Izod notched	t break	50 mm/min	%	b.o. ISO 527-1,-2	120
Flexural modulus 2 mm/min MPa ISO 178 2350 Flexural strength 2 mm/min MPa ISO 178 96 Flexural strength 2 mm/min MPa ISO 178 96 Flexural strength 2 mm/min MPa ISO 178 7.0 Flexural strength 2 mm/min MPa ISO 178 7.2 C Charpy impact strength 23 °C kJ/m² ISO 179-1eU N C Charpy impact strength -60 °C kJ/m² ISO 179-1eU N C Charpy impact strength -60 °C kJ/m² ISO 179-1eU N C Charpy impact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P C Charpy notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C N ISO 6603-2 5100<	creep modulus	1 h	MPa	ISO 899-1	2200
Flexural strength 2 mm/min MPa ISO 178 96 Flexural strain at flexural strength 2 mm/min % ISO 178 7.0 Flexural strength 2 mm/min MPa ISO 178 7.0 Flexural strength 2 mm/min MPa ISO 178 7.0 C Charpy impact strength 23 °C kJ/m² ISO 179-1eU N C charpy impact strength -30 °C kJ/m² ISO 179-1eU N C charpy impact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P C charpy notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C C charpy notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C I cod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 66P I cod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C P uncture maximum force 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C P uncture energy 23 °C	creep modulus	1000 h	MPa	ISO 899-1	1900
Flexural strain at flexural strength 2 mm/min % ISO 178 7.0 Flexural stress at 3.5 % strain 2 mm/min MPa ISO 178 72 C Charpy impact strength 23 °C kJ/m² ISO 179-1eU N C Charpy impact strength -30 °C kJ/m² ISO 179-1eU N C charpy impact strength -60 °C kJ/m² ISO 179-1eU N C charpy impact strength -60 °C kJ/m² ISO 179-1eU N C harpy impact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P C harpy notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C Q Puncture maximum force 23 °C N ISO 6603-2 6600 Q Puncture energy 23 °C	I modulus	2 mm/min	MPa	ISO 178	2350
Flexural stress at 3.5 % strain 2 mm/min MPa ISO 178 72 C Charpy impact strength 23 °C kJ/m² ISO 179-1eU N C Charpy impact strength -30 °C kJ/m² ISO 179-1eU N C Charpy impact strength -60 °C kJ/m² ISO 179-1eU N C Charpy inpact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P Charpy notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Charpy notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture maximum force -30 °C J I	I strength	2 mm/min	MPa	ISO 178	96
Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	I strain at flexural strength	2 mm/min	%	ISO 178	7.0
C Charpy impact strength -30 °C kJ/m² ISO 179-1eU N C harpy impact strength -60 °C kJ/m² ISO 179-1eU N C harpy inpact strength -60 °C kJ/m² ISO 7391/b.o. ISO 65P C harpy notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C Q Puncture maximum force -30 °C; 3 mm kJ/m² ISO 6603-2 5100 Q Puncture energy 23 °C N ISO 6603-2 6000 Q Puncture energy -30 °C N ISO 6603-2 65P Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties C G S	I stress at 3.5 % strain	2 mm/min	MPa	ISO 178	72
Instruction Instruction <thinstruction< th=""> <thinstruction< th=""></thinstruction<></thinstruction<>	impact strength	23 °C	kJ/m²	ISO 179-1eU	N
Charpy notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 65P Charpy notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14C Izod notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture energy 23 °C J ISO 6603-2 655 G Puncture energy -30 °C J ISO 6603-2 65 Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties	impact strength	-30 °C	kJ/m²	ISO 179-1eU	N
Image: Constraint of the strength 179-1eA Charpy notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 14/C 179-1eA 14C Izod notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 65P Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture maximum force -30 °C N ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 650 Q Puncture energy 23 °C J ISO 6603-2 655 C Puncture energy -30 °C J ISO 6603-2 655 Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties N/mm² ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of defl	impact strength	-60 °C	kJ/m²	ISO 179-1eU	N
Ized notched impact strength 23 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 665P Ized notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture maximum force -30 °C N ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 650 Ball indentation hardness -30 °C J ISO 6603-2 65 Ball indentation hardness -30 °C J ISO 6603-2 65 Ball indentation hardness N/mm² ISO 2039-1 1113 Termal properties C Gass transition temperature 10 °C/min °C ISO 75-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45	notched impact strength	23 °C; 3 mm	kJ/m²		65P
Izod notched impact strength -30 °C; 3 mm kJ/m² ISO 7391/b.o. ISO 180-A 15C C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture maximum force -30 °C N ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 655 C Puncture energy -30 °C J ISO 6603-2 65 Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	notched impact strength	-30 °C; 3 mm	kJ/m²		14C
C Puncture maximum force 23 °C N ISO 6603-2 5100 C Puncture maximum force -30 °C N ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 655 C Puncture energy -30 °C J ISO 6603-2 655 Ball indentation hardness -30 °C J ISO 6603-2 655 Ball indentation hardness N/mm² ISO 2039-1 1113 Thermal properties C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 306 147 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	tched impact strength	23 °C; 3 mm	kJ/m²	ISO 7391/b.o. ISO 180-A	65P
C Puncture maximum force -30 °C N ISO 6603-2 6000 C Puncture energy 23 °C J ISO 6603-2 55 C Puncture energy -30 °C J ISO 6603-2 55 C Puncture energy -30 °C J ISO 6603-2 65 Ball indentation hardness	tched impact strength	-30 °C; 3 mm	kJ/m²	ISO 7391/b.o. ISO 180-A	15C
C Puncture energy 23 °C J ISO 6603-2 55 C Puncture energy -30 °C J ISO 6603-2 65 Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties C G lass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	e maximum force	23 °C	N	ISO 6603-2	5100
C Puncture energy -30 °C J ISO 6603-2 65 Ball indentation hardness N/mm² ISO 2039-1 113 Thermal properties C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	e maximum force	-30 °C	N	ISO 6603-2	6000
Ball indentation hardness N/mm2 ISO 2039-1 113 Thermal properties C ISO 11357-1,-2 147 C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	e energy	23 °C	J	ISO 6603-2	55
C Iso 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	e energy	-30 °C	J	ISO 6603-2	65
C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	entation hardness		N/mm²	ISO 2039-1	113
C Glass transition temperature 10 °C/min °C ISO 11357-1,-2 147 C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 127 C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	roperties	I			
C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	-	10 °C/min	°C	ISO 11357-1,-2	147
C Temperature of deflection under load 0.45 MPa °C ISO 75-1,-2 139 C Vicat softening temperature 50 N; 50 °C/h °C ISO 306 147	•			ISO 75-1,-2	127
	ature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	139
	oftening temperature	50 N; 50 °C/h	°C	ISO 306	147
vicat somening temperature 50 N; 120 °C/n °C ISO 306 148	oftening temperature	50 N; 120 °C/h	°C	ISO 306	148
C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 ⁻⁴ /K ISO 11359-1,-2 0.65	ent of linear thermal expansion, parallel				
C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 ⁻⁴ /K ISO 11359-1,-2 0.65	ent of linear thermal expansion, transverse	23 to 55 °C		ISO 11359-1,-2	0.65
Thermal conductivity, cross-flow 23 °C; 50 % r. h. W/(m-K) ISO 8302 0.20	I conductivity, cross-flow	23 °C; 50 % r. h.		ISO 8302	0.20
Resistance to heat (ball pressure test) °C IEC 60695-10-2 138	nce to heat (ball pressure test)			IEC 60695-10-2	138
Flash ignition temperature °C ASTM D1929 480	, , ,				
Self ignition temperature °C ASTM D1929 550	ition temperature		°C		550





Makrolon® 2408

Property	Test Condition	Unit	Standard	typical Value
Other properties (23 °C)				-
C Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.30
C Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.12
CDensity		kg/m³	ISO 1183-1	1200
Bulk density	Pellets	kg/m³	ISO 60	660
Material specific properties				J
Refractive index	Procedure A	-	ISO 489	1.586
Haze for transparent materials	3 mm	%	ISO 14782	< 0.8
Luminous transmittance (clear transparent materials)	1 mm	%	ISO 13468-2	89
C Luminous transmittance (clear transparent materials)	2 mm	%	ISO 13468-2	89
Luminous transmittance (clear transparent materials)	3 mm	%	ISO 13468-2	88
Luminous transmittance (clear transparent materials)	4 mm	%	ISO 13468-2	87
Processing conditions for test specimens				<u>.</u>
C Injection molding-Melt temperature		°C	ISO 294	280
C Injection molding-Mold temperature		°C	ISO 294	80
C Injection molding-Injection velocity		mm/s	ISO 294	200

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Impact properties: N = non-break, P = partial break, C = complete break





Makrolon® 2408

Disclaimer

Information Impact properties

Impact properties: N = non-break, P = partial break, C = complete break

Typical value

These values are typical values only. Unless explicitly agreed in written form, the do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

Genera

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