

POLYNIL®

PA 6.6 RESINS

EN

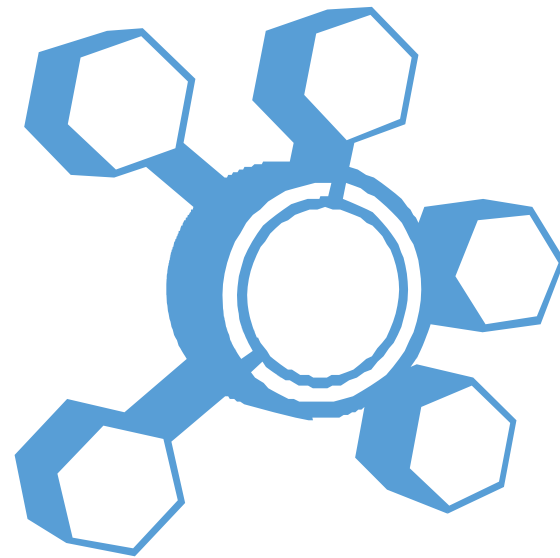
- DESIGNED FOR COMPOUNDING, INJECTION AND EXTRUSION
- LARGE VISCOSITY RANGE
- UL LISTED
- SUITABLE FOR CONTACT WITH FOOD AND POTABLE WATER

IT

- PA 6.6 PER COMPOUND, STAMPAGGIO E ESTRUSIONE
- AMPIA GAMMA DI VISCOSITÀ
- CERTIFICAZIONI UL
- ADATTI AL CONTATTO CON ALIMENTI E ACQUA POTABILE

DE

- ENTWICKELT FÜR COMPOUNDIERUNG, SPRITZGUSS UND EXTRUSION
- UMFANGREICHE VISKOSITÄTSBANDBREITE
- UL GELISTET
- GEEIGNET FÜR DEN KONTAKT MIT LEBENSMITTELN UND TRINKWASSER



POLYNIL®

EXAMPLES OF MAIN APPLICATIONS

ESEMPI DELLE PRINCIPALI APPLICAZIONI

ANWENDUNGSBEISPIELE

CAR DOOR HINGES
CERNIERE PORTIERA AUTO
AUTOTÜRSCHARNIER



GRASS CUTTER STRING
FILO PER DECESPUGLIATORE
RASENTRIMMERSCHNUR



KITCHEN TOOLS
UTENSILI DA CUCINA
KÜCHENWERKZEUGE



PA6.6 UNFILLED GRADES		PA6.6 UNREINFORCED FOR INJECTION MOLDING									PA6.6 FOR COMPOUNDING AND ALLOYING								
TYPE	POLYNIL P50 FI	POLYNIL P50 FIHS	POLYNIL P50 FIBK	POLYNIL P50 N	POLYNIL P50 FL	POLYNIL P50 L	POLYNIL P50 LHS	POLYNIL P240 L	POLYNIL P240 LH SV	POLYNIL C60L	POLYNIL P36/4	POLYNIL P40/4	POLYNIL P43/4	POLYNIL P50/4	POLYNIL P50 H	POLYNIL C3588	POLYNIL C50	POLYNIL P50 EF/4	
PROPERTIES	INTERNALLY LUBRICATED, 2.7 VISCOSITY, COMPLIES WITH CFR21 177.1500	INTERNALLY LUBRICATED, HEAT STABILIZED, 2.7 VISCOSITY	INTERNALLY LUBRICATED, BLACK, 2.7 VISCOSITY	NUCLEATED, FAST CYCLING, 2.7 VISCOSITY	NUCLEATED, LUBRICATED, 2.7 VISCOSITY	LUBRICATED, 2.7 VISCOSITY, COMPLIES WITH CFR21 177.1500	LUBRICATED, HEAT STABILIZED, 2.7 VISCOSITY	WEAR RESISTANT, 5 VISCOSITY, COMPLIES WITH CFR21 177.1500	WEAR RESISTANT, HEAT STABILIZED, 5 VISCOSITY	PA6.6/6 COPOLYMER, 2.9 VISCOSITY, COMPLIES WITH CFR21 177.1500	2.4 VISCOSITY, COMPLIES WITH CFR21 177.1500, MOISTURE <0.4%	2.5 VISCOSITY, COMPLIES WITH CFR21 177.1500, MOISTURE <0.4%	2.6 VISCOSITY, COMPLIES WITH CFR21 177.1500, MOISTURE <0.4%	2.7 VISCOSITY, COMPLIES WITH CFR21 177.1500, MOISTURE <0.4%	HIGH AMINE, 2.7 VISCOSITY, COMPLIES WITH CFR21 177.1500, MOISTURE <0.2%	PA6.6/6 HIGH FLOW, 2.4 VISCOSITY, COMPLIES WITH CFR21 177.1500	PA6.6/6, 2.7 VISCOSITY, COMPLIES WITH CFR21 177.1500	PA6.6, EXTRA FLOW FOR LGF, COMPLIES WITH CFR21 177.1500, MOISTURE <0.4%	
DENSITY 23°Cg/cm³ ISO 1183	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,13	1,14	1,14	1,14	1,14	1,14	1,13	1,13	1,14	
MOULD SHRINKAGE (PARALLEL) 23°C % ISO 294-4	1,4	1,4	1,4	1	1	1,3	1,4	1,4	1,4	1,5	-	-	-	-	-	-	-	-	
MOULD SHRINKAGE (NORMAL) 23°C % ISO 294-4	1,6	1,6	1,6	1,2	1,2	1,5	1,6	1,4	1,4	1,7	-	-	-	-	-	-	-	-	
MOISTURE ABSORPTION IN WATER 23°C -12% ISO 62	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	
MOISTURE ABSORPTION IN WATER 23°C SATURATION % ISO 62	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	
NOTCHED IZOD IMPACT STRENGTH 23°C J/m ISO 180/A	5,5	5,5	5,5	4,8	4,8	5,5	5,5	7	7	6	5,5	5,5	5,5	5,5	5,5	6	6	5,5	
NOTCHED IZOD IMPACT STRENGTH -30°C J/m ISO 180/A	4,5	4,5	4,5	4,6	4,7	4,5	4,5	-	-	-	4,5	4,5	4,5	4,5	4,5	-	-	4,5	
UNNOTCHED CHARPY IMPACT STRENGTH 23°C KJ/M2 ISO 179/1EU	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	
UNNOTCHED CHARPY IMPACT STRENGTH -30°C KJ/M2 ISO 179/1EU	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	-	-	-	-	-	-	-	-	
NOTCHED CHARPY IMPACT STRENGTH 23°C KJ/M2 ISO 179/1EA	5,5	5,5	5,5	4,7	5	5,5	5,5	8	5	6,5	5,5	5,5	5,5	5,5	-	6,5	6,5	-	
NOTCHED CHARPY IMPACT STRENGTH -30°C KJ/M2 ISO 179/1EA	4,5	4,5	4,5	4	4,5	4,5	4,5	-	4	5,5	4,5	4,5	4,5	4,5	-	5,5	5,5	-	
TENSILE YIELD STRESS 23°C MPa ISO 527	83	83	83	90	90	83	83	82	84	80	81	81	81	81	81	81	81	-	
TENSILE MODULUS 23°C GPa ISO 527	3100	3100	3100	3500	3500	3100	3100	2800	2700	2900	3.100	3.100	3.100	3.100	3.100	2.500	2.500	-	
TENSILE YIELD STRAIN 23°C % ISO 527	6	6	6	5	5	6	6	-	-	8	NTBR	NTBR	NTBR	NTBR	NTBR	NTBR	NTBR	NTBR	
TENSIL STRAIN AT BREAK 23°C % ISO 527	50	50	50	30	30	50	50	100	100	80	50	50	50	50	50	80	80	-	
FLEXURAL YIELD STRESS 23°C MPa ISO 178	120	120	120	120	120	120	120	120	118	110	120	120	120	120	120	110	110	120	
FLEXURAL MODULUS 23°C GPa ISO 178	2900	2900	2900	3100	3100	2900	2900	2800	2700	2500	2850	2850	2850	2850	2850	2500	2500	2850	
MELTING POINT °C	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 249	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 249	APPROX. 249	APPROX. 258	
VICAT - SOFTENING TEMPERATURE 49N °C ISO 306	240	240	240	240	240	240	240	240	240	220	240	240	240	240	240	220	220	240	
HDT - DEFLECTION TEMPERATURE UNDER LOAD 0.45N/MM2 °C ISO 75	225	225	225	238	225	225	225	225	225	210	225	225	225	225	225	210	210	-	
HDT - DEFLECTION TEMPERATURE UNDER LOAD 1N/MM2 °C ISO 75	72	72	72	78	78	72	72	72	72	65	72	72	72	72	72	65	65	-	
HEAT RESISTANCE - BALL TEST 125°C IEC 60309-1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	-	
HEAT RESISTANCE - BALL TEST 165°C IEC 60309-1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	-	
CONTINUOUS SERVICE TEMPERATURE 200h0°C IEC 216	85	130	85	85	85	85	130	85	130	-	85	85	85	85	85	-	-	85	
DIELECTRIC STRENGTH 50m KV/mm IEC60 243	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	-	-	18	
SURFACE RESISTIVITY 23°C Ohm/m IEC 60093	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	-	-	-	-	-	-	-	-	
VOLUME RESISTIVITY 23°C Ohm/m IEC 60093	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	-	-	-	-	-	-	-	-	
CTI - COMPARATIVE TRACKING INDEX (20) SOL. A V IEC 60112	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
OXYGEN INDEX % IEC 4589	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	-	-	28	
FLAMMABILITY RATING 3.2 (10) UL 94	V2	V2	V2	V2	-	V2	V2	HB	-	-	V2	V2	V2	V2	V2	-	-	V2	
FLAMMABILITY RATING 0.8 (0.4) UL 94	V2	V2	V2	V2	-	V2	V2	HB	-	-	V2	V2	V2	V2	V2	-	-	V2	
GLOW WIRE FLAMMABILITY INDEX 3.2 (0.8) °C IEC 60695-2-12	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	-	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	-	-	850 (750)	
GLOW WIRE IGNITION TEMPERATURE 3.2 (0.8) °C IEC 60695-2-13	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	-	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	-	-	750 (775)	
FLAMMABILITY RATING 355 X 100 (0.4) FMVSS No.302	SE	SE	SE	SE	SE	SE	SE	-	S.E.	SE	-	-	-	-	-	-	-	-	

UL LISTED NB = NO BREAK

PA6.6 UNFILLED GRADES		PA6.6 FOR MONOFILAMENT EXTRUSION						PA6.6 FOR EXTRUSION / FILM			RECYCLED PA6.6		PA6.6 FOR FIBER SPINNING			
TYPE	POLYNIL P60	POLYNIL P75	POLYNIL P75 BR	POLYNIL P100	POLYNIL P120	POLYNIL P120 HS	POLYNIL P125	POLYNIL P85	POLYNIL P240	POLYNIL P270	POLYNIL PR40	POLYNIL PR40 LHS	POLYNIL T34	POLYNIL T40	POLYNIL S40	POLYNIL B40
PROPERTIES	2.9 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	3.1 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	BRIGHT, 3.1 VISCOSITY, COMPLIES WITH CFR21 177.1500	3.5 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	4.0 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	HEAT STABILIZED, 4.0 VISCOSITY	4.2 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	CASTING, 3.3 VISCOSITY, COMPLIES WITH CFR21 177.1500	CAST AND BLOWN FILM, 5.0 VISCOSITY, COMPLIES WITH CFR21 177.1500, NSF/ANSI 61 CERTIFIED	EXTRUSION, 5.3 VISCOSITY, COMPLIES WITH CFR21 177.1500	FROM SD FIBER, FOR COMPOUNDING, 2.6 VISCOSITY	FROM SD FIBER, FOR INJECTION MOLDING, HEAT STABILIZED, 2.6 VISCOSITY	SEMI DULL 2.4 VISCOSITY, COMPLIES WITH CFR21 177.1500	SEMI DULL 2.5 VISCOSITY, COMPLIES WITH CFR21 177.1500	FULL DULL 2.5 VISCOSITY,	BRIGHT 2.5 VISCOSITY, COMPLIES WITH CFR21 177.1500
DENSITY 23°C g/cm³ ISO 1183	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14	1,14
MOULD SHRINKAGE (PARALLEL) 23°C % ISO 294-4	-	-	-	-	-	-	-	-	-	-	1,4	1,7	-	-	-	-
MOULD SHRINKAGE (NORMAL) 23°C % ISO 294-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MOISTURE ABSORPTION IN WATER 23°C - 24h % ISO 62	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
MOISTURE ABSORPTION IN WATER 23°C SATURATION % ISO 62	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50
NOTCHED IZOD IMPACT STRENGTH 23°C KJ/m² ISO 180/A	5	5	5	5	5	5	5	5	7	7	4,8	5,8	-	-	-	-
NOTCHED IZOD IMPACT STRENGTH -30°C KJ/m² ISO 180/A	-	-	-	-	-	-	-	-	-	-	4,3	5,3	-	-	-	-
UNNOTCHED CHARPY IMPACT STRENGTH 23°C KJ/M2 ISO 179/1EU	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	-	-	-	-
UNNOTCHED CHARPY IMPACT STRENGTH -30°C KJ/M2 ISO 179/1EU	-	-	-	-	-	-	-	-	-	-	NB	NB	-	-	-	-
NOTCHED CHARPY IMPACT STRENGTH 23°C KJ/M2 ISO 179/1EA	6	6	6	7	7	7	7	7	8	8	-	-	-	-	-	-
NOTCHED CHARPY IMPACT STRENGTH -30°C KJ/M2 ISO 179/1EA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TENSILE YIELD STRESS 23°C MPa ISO 527	82	82	82	82	82	82	82	82	82	82	81	81	-	-	-	-
TENSILE MODULUS 23°C MPa ISO 527	3200	3200	3200	3200	2800	2700	2800	3200	2800	2800	2.800	2.500	-	-	-	-
TENSILE YIELD STRAIN 23°C % ISO 527	-	-	-	-	-	-	-	-	-	-	6	6	-	-	-	-
TENSIL STRAIN AT BREAK 23°C % ISO 527	85	85	85	100	100	100	100	85	100	100	> 40	> 40	-	-	-	-
FLEXURAL YIELD STRESS 23°C MPa ISO 178	115	115	115	115	115	115	115	115	120	120	120	120	-	-	-	-
FLEXURAL MODULUS 23°C MPa ISO 178	2600	2600	2600	2700	2700	2700	2700	2600	2800	2800	2600	2100	-	-	-	-
MELTING POINT °C	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258	approx. 258
VICAT - SOFTENING TEMPERATURE 49N °C ISO 306	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
HDT - DEFLECTION TEMPERATURE UNDER LOAD 0.45N/MM² °C ISO 75	225	225	225	225	225	225	225	225	225	225	225	225	225	225	225	225
HDT - DEFLECTION TEMPERATURE UNDER LOAD 1.82N/MM² °C ISO 75	72	72	72	72	72	72	72	72	72	72	70	77	85	85	85	85
HEAT RESISTANCE - BALL TEST 125°C IEC 60309-1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	-	-	-	-	-	-
HEAT RESISTANCE - BALL TEST 165°C IEC 60309-1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	-	-	-	-	-	-
CONTINUOUS SERVICE TEMPERATURE 20000h °C IEC 216	85	85	85	85	85	130	85	85	85	85	85	130	85	85	85	85
DIELECTRIC STRENGTH 2 mm KV/mm IEC 60 243	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-
SURFACE RESISTIVITY 23°C Ohm/m IEC 60093	-	-	-	-	-	-	-	-	-	-	10*12	10*12	-	-	-	-
VOLUME RESISTIVITY 23°C Ohm/m IEC 60093	-	-	-	-	-	-	-	-	-	-	10*13	10*13	-	-	-	-
CTI - COMPARATIVE TRACKING INDEX 3.2mm, SOL. A V IEC 60112	600	600	600	600	600	600	600	600	600	600	600	600	-	-	-	-
OXYGEN INDEX % IEC 4589	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
FLAMMABILITY RATING 3.2 (1.6)mm UL 94	HB	HB	HB	HB	HB	HB	HB	HB	HB	HB	V2	V2	-	-	-	-
FLAMMABILITY RATING 0.8 (0.4)mm UL 94	HB	HB	HB	HB	HB	HB	HB	HB	HB	HB	V2	V2	-	-	-	-
GLOW WIRE FLAMMABILITY INDEX 3.2 (0.8)mm °C IEC 60695-2-12	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (850)	850 (850)	-	-	-	-
GLOW WIRE IGNITION TEMPERATURE 3.2 (0.8)mm °C IEC 60695-2-13	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	-	-	-	-	-	-
FLAMMABILITY RATING 355 X 100 X 1 mm FMVSS No.302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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