

Product Brochure

APPLICATION	PA6.6 UNREINFORCED FOR							
PRODUCT	POLYNIL® P50 FI	POLYNIL® P50 FIHS	POLYNIL® P50 FIBK	POLYNIL® P50 N	POLYNIL® P50 FL	POLYNIL® P50 FLBK	POLYNIL® P50 L	POLYNIL® P50 LBK
PROPERTIES	INTERNALLY LUBRICATED, 2.7 VISCOSITY, FDA COMPLIANT	INTERNALLY LUBRICATED, HEAT STABILIZED, 2.7 VISCOSITY	INTERNALLY LUBRICATED, BLACK, 2.7 VISCOSITY	NUCLEATED, FAST CYCLING, 2.7 VISCOSITY	NUCLEATED, LUBRICATED, 2.7 VISCOSITY	NUCLEATED, LUBRICATED, BLACK, 2.7 VISCOSITY	LUBRICATED, 2.7 VISCOSITY, FDA COMPLIANT	LUBRICATED, BLACK, 2.7 VISCOSITY
DENSITY 23°C g/cm³ ISO 1183	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	1,4	1,4	1	1	1	1,3	1,3
MOULD SHRINKAGE (NORMAL) 23°C % ISO 294-4	1,6	1,6	1,6	1,2	1,2	1,2	1,5	1,5
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
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
NOTCHED IZOD IMPACT STRENGTH 23°C KJ/m² ISO 180/A	5,5	5,5	5,5	4,8	4,8	4,8	5,5	5,5
NOTCHED IZOD IMPACT STRENGTH -30°C KJ/m² ISO 180/A	4,5	4,5	4,5	4,6	4,7	4,7	4,5	4,5
UNNOTCHED CHARPY IMPACT STRENGTH 23°C KJ/m² ISO 179/1EU	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
NOTCHED CHARPY IMPACT STRENGTH 23°C KJ/m² ISO 179/1EA	5,5	5,5	5,5	4,7	5	5	5,5	5,5
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
TENSILE YIELD STRESS 23°C MPa ISO 527	83	83	83	90	90	90	83	83
TENSILE MODULUS 23°C MPa ISO 527	3100	3100	3100	3500	3500	3500	3100	3100
TENSILE YIELD STRAIN 23°C % ISO 527	6	6	6	5	5	5	6	6
TENSIL STRAIN AT BREAK 23°C % ISO 527	50	50	50	30	30	30	50	50
FLEXURAL YIELD STRESS 23°C MPa ISO 178	120	120	120	120	120	120	120	120
FLEXURAL MODULUS 23°C MPa ISO 178	2900	2900	2900	3100	3100	3100	2900	2900
MELTING POINT °C	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
HDT - DEFLECTION TEMPERATURE UNDER LOAD 0.45N/mm² °C ISO 75	225	225	225	238	225	225	225	225
HDT - DEFLECTION TEMPERATURE UNDER LOAD 1.82N/mm² °C ISO 75	72	72	72	78	78	78	72	72
HEAT RESISTANCE - BALL TEST 125°C IEC 60309-1	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
CONTINUOUS SERVICE TEMPERATURE 20000H °C IEC 216	85	130	85	85	85	85	85	85
DIELECTRIC STRENGTH 2 mm KV/mm IEC60 243	18	18	18	18	18	18	18	18
SURFACE RESISTIVITY 23°C ohm IEC 60093	1012	1012	1012	1012	1012	1012	1012	1012
VOLUME RESISTIVITY 23°C ohm/m IEC 60093	1013	1013	1013	1013	1013	1013	1013	1013
CTI - COMPARATIVE TRACKING INDEX 3.2mm, SOL. A V IEC 60112	600	600	600	600	600	600	600	600
OXYGEN INDEX % IEC 4589	28	28	28	28	28	28	28	28
FLAMMABILITY RATING 3.2 (1.6)mm UL 94	V2	V2	V2	V2	V2	V2	V2	V2
FLAMMABILITY RATING 0.8 (0.4)mm UL 94	V2	V2	V2	V2	V2	V2	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)
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)
FLAMMABILITY RATING 355 X 100 X 1mm FMVSS NO.302	SE	SE	SE	SE	SE	SE	SE	SE

Injection Molding						PA6.6 for Compounding					
POLYNIL® P50 LHS	POLYNIL® P240 L	POLYNIL® P240 LBK	POLYNIL® P240 LHSV	POLYNIL® C50L	POLYNIL® C60L	POLYNIL® P36/4	POLYNIL® P40/4	POLYNIL® P45/2	POLYNIL® P50/1	POLYNIL® P50/2	POLYNIL® P50/4
LUBRICATED, HEAT STABILIZED, 2.7 VISCOSITY	WEAR RESISTANT, 5 VISCOSITY, FDA COMPLIANT	WEAR RESISTANT, BLACK, 5 VISCOSITY	WEAR RESISTANT, HEAT STABILIZED, 5 VISCOSITY	PA6.6/6 COPOLYMER, 2.7 VISCOSITY, FDA COMPLIANT	PA6.6/6 COPOLYMER, 2.9 VISCOSITY, FDA COMPLIANT	2.4 VISCOSITY, FDA COMPLIANT, MOISTURE <0.4%	2.5 VISCOSITY, FDA COMPLIANT, MOISTURE <0.4%	2.6 VISCOSITY, FDA COMPLIANT, MOISTURE <0.2%	2.7 VISCOSITY, FDA COMPLIANT, MOISTURE <0.1%	2.7 VISCOSITY, FDA COMPLIANT, MOISTURE <0.2%	2.7 VISCOSITY, FDA COMPLIANT, MOISTURE <0.4%
1,14	1,14	1,14	1,14	1,13	1,13	1,14	1,14	1,14	1,14	1,14	1,14
1,4	1,4	1,4	1,4	1,5	1,5	-	-	-	-	-	-
1,6	1,4	1,4	1,4	1,7	1,7	-	-	-	-	-	-
1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50	8,50
5,5	7	7	7	6	6	5,5	5,5	5,5	5,5	5,5	5,5
4,5	-	-	-	-	-	4,5	4,5	4,5	4,5	4,5	4,5
NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB
NB	NB	NB	NB	NB	NB	-	-	-	-	-	-
5,5	8	8	5	6,5	6,5	5,5	5,5	5,5	5,5	5,5	5,5
4,5	-	-	4	5,5	5,5	4,5	4,5	4,5	4,5	4,5	4,5
83	82	82	84	80	80	81	81	81	81	81	81
3100	2800	2800	2700	2900	2900	3.100	3.100	3.100	3.100	3.100	3.100
6	-	-	-	8	8	NTBR	NTBR	NTBR	NTBR	NTBR	NTBR
50	100	100	100	80	80	50	50	50	50	50	50
120	120	120	118	110	110	120	120	120	120	120	120
2900	2800	2800	2700	2500	2500	2850	2850	2850	2850	2850	2850
APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 249	APPROX. 249	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258	APPROX. 258
240	240	240	240	220	220	240	240	240	240	240	240
225	225	225	225	210	210	225	225	225	225	225	225
72	72	72	72	65	65	72	72	72	72	72	72
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
130	85	85	130	-	-	85	85	85	85	85	85
18	18	18	18	18	18	18	18	18	18	18	18
1012	1012	1012	1012	1012	1012	-	-	-	-	-	-
1013	1013	1013	1013	1013	1013	-	-	-	-	-	-
600	600	600	600	600	600	600	600	600	600	600	600
28	28	28	28	28	28	28	28	28	28	28	28
V2	HB	HB	-	-	-	V2	V2	V2	V2	V2	V2
V2	HB	HB	-	-	-	V2	V2	V2	V2	V2	V2
850 (750)	850 (750)	850 (750)	850 (750)	-	-	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)	850 (750)
750 (775)	750 (775)	750 (775)	750 (775)	-	-	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)	750 (775)
SE	-	-	S.E.	SE	SE	-	-	-	-	-	-

INTEGRATION

Nilit's fully-integrated plastics operation offers a uniquely broad variety of nylon 66 products. Over 25 years ago, backward integration enabled monomer production, polymerization & post-polymerization, leading to the introduction of a second line of business - production of nylon 66 polymers for the engineering thermoplastics industry. Now, with decades of experience in top quality spinning and polymerization and joint R&D projects with leading scientific research institutions, Nilit Ltd. can customize polymers for virtually any nylon 66 applications.

GENERAL PURPOSE & SPECIALTY PA6.6 RESINS

We assure continuous support and cooperation to our customers and partners. Nilit Ltd. offers one of the broadest ranges of Unreinforced General Purpose & Specialty resins based on nylon 66 and copolymers 66/6 in the industry. Our product range under POLYNIL trademark was developed over the years in supplying a large variety of applications: Compounding & Alloying, Injection Molding, Monofilament, Profile Extrusion, Film Blowing & Casting. Specialty PA6.6 products can also be supplied to meet specific customer requirements.

QUALITY

Quality is our way of life and represents our key competitive factor. Nilit Ltd. is registered to ISO 9001 (Quality systems standard), and OHSAS 18001 (Health and Safety standard). Among our products we offer FDA and BfR approved grades for medical and food applications. Among our unreinforced POLYNIL Injection Molding Grades we manufacture a variety of UL94 approved products for the Electrical and Electronic industry.

All products are RoHS & REACH compliant.

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