

HIGH PERFORMANCE POLYMERS RANGE OF POLYAMIDES

RadiciGroup High Performance Polymers offers a wide range of polyamide engineering polymers used in a great variety of automotive, electrical/electronics, industrial and consumer goods applications.

Our range of polyamides includes both traditional products and highly innovative specialities, such as materials suitable for continuous service at high temperatures, grades specifically designed for metal replacement and others with superior resistance to chemical agents.



	PRODUCT NAME	BRIEF DESCRIPTION	TYPICAL APPLICATIONS
PA6	RADILON® S HS	PA6 unfilled injection moulding grade.	Standard viscosity, general purpose grade.
	RADILON® S 40E	PA6 high viscosity extrusion grade. Lubricated.	Suitable for injection moulding of high thickness items.
	RADILON® S HSX	PA6 injection moulding grade. Toughened.	Suitable for parts requiring improved impact resistance.
	RADILON® S USZ200	PA6 injection moulding grade. Toughened.	Suitable for parts requiring excellent impact resistance, even at low temperatures.
	RADILON® S RCP3010LW	PA6 30% glass-fibre and mineral filler reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring improved stiffness and dimensional stability.
	RADILON® S RV300W	PA6 30% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring high stiffness and good mechanical resistance.
	RADILON® S RV350W	PA6 35% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring high stiffness and good mechanical resistance.
	RADILON® S ERV3808K	PA6 30% glass-fibre reinforced injection moulding grade. Toughened, heat stabilized.	Suitable for parts requiring improved impact strength and high stiffness.
	RADILON® S BMX200K	PA6 high viscosity blow moulding grade.	Suitable for blow moulding of tubes and containers.
	RADILON® S URV600LW	PA6 60% glass-fibre reinforced injection moulding grade. Very high flowability. Heat stabilized.	Suitable for metal replacement applications.
PA6.6	RADILON® A HS	PA6.6 unfilled for injection moulding.	Standard viscosity grade, suitable for high productivity items.
	RADILON® A 42K	PA6.6 high viscosity extrusion grade. Heat stabilized.	Also suitable for injection moulding of high thickness items.
	RADILON® A HSX88	PA6.6 injection moulding grade. Toughened.	Suitable for parts requiring improved impact resistance.
	RADILON® A USZ200	PA6.6 injection moulding grade. Toughened.	Suitable for parts requiring excellent impact resistance, even at low temperatures.
	RADILON® A RV300W	PA6.6 30% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring high stiffness and good mechanical resistance.
	RADILON® A RV350W	PA6.6 35% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring high stiffness and good mechanical resistance.
	RADILON® A RV500RW	PA6.6 50% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for technical parts requiring very high mechanical resistance. Ideal for metal replacement applications.
	RADILON® A CF300K	PA6.6 30% carbon-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring very high mechanical properties, higher electrical and thermal conductivity.
	RADILON® A ERV130LK	PA6.6 13% glass fiber reinforced injection moulding grade. Toughened, heat stabilized.	Suitable for parts requiring improved impact strength along with enhanced stiffness.
PA6.10	RADILON® D HS	PA6.10 injection moulding grade. Nucleated and lubricated, fast cycling.	This grade is partially renewably-sourced (60% of base polymer by weight).
	RADILON® D RV300W	PA6.10, 30% glass-fibre reinforced injection moulding grade. Heat stabilized.	Suitable for parts requiring high stiffness and mechanical resistance. This grade is partially renewably-sourced (60% of base polymer by weight).
	RADILON® D 40EP25ZW	PA6.10 flexible, high viscosity extrusion grade. Toughened and plasticized.	Suitable for extrusion of pipes, profiles and cable jackets. This grade is partially renewably-sourced (60% of base polymer by weight).
	RADILON® D 40P50K	PA6.10 flexible, high viscosity extrusion grade. Plasticized.	Suitable for extrusion of air pressure pipes. This grade is partially renewably-sourced (60% of base polymer by weight).
PA6.12	RADILON® DT 22D	PA6.12, low viscosity.	Typical grade for monofilament extrusion.
	RADILON® DT RV300RK2	PA6.12 30% glass fiber reinforced injection moulding grade. Heat and hydrolysis stabilized.	Suitable for applications in the water management sector.
PA6 PA6.6 PBT SELF-EXTINGUISHING	RADIFLAM® S FR	PA6 flame retardant injection moulding grade. Halogen and phosphorus free.	UL 94 V-0 rated at 0.4 mm.
	RADIFLAM® A FR	PA6.6 flame retardant injection moulding grade. Halogen and phosphorus free.	UL 94 V-0 rated at 0.4 mm.
	RADIFLAM® A RV250K AE	PA6.6 flame retardant injection moulding grade. 25% glass-fibre reinforced.	Suitable for parts requiring fire retardancy and good mechanical resistance. UL 94 V-0 rated.
	RADIFLAM® A RV300 HF	PA6.6 flame retardant, halogen and phosphorus free injection moulding grade. 30% glass-fibre reinforced.	Suitable for parts requiring fire retardancy and good mechanical resistance. UL-94 V-0 rated.
	RADIFLAM® A RV350 AF	PA6.6 flame retardant injection moulding grade with red phosphorus. 35% glass-fibre reinforced.	Suitable for parts requiring fire retardancy and good mechanical resistance. UL 94 V-0 rated.
	RADIFLAM® S RV300 HF	PA6 flame retardant injection moulding grade, halogen and red phosphorus free. 30% glass-fibre reinforced.	Suitable for parts requiring fire retardancy and good mechanical resistance. Good electrical insulating properties. UL 94 V-0 rated.
HIGH TEMPERATURE PA	RADILON® A RV350HHR	PA6.6 35% glass fiber reinforced injection molding grade with enhanced thermal resistance in contact with hot air.	Suitable for continuous use at air temperatures of up to 210 °C.
	TORZEN® MARATHON G5000XHL	High Temperature PA6.6, 50% glass fiber reinforced. Improved thermal resistance in contact with hot air.	Suitable for applications at continuous service temperatures of up to 190 °C.



			PA6									PA6.6									PA6.10				PA6.12		PA6, PA6.6 FLAME RETARDANT						HIGH TEMPERATURE PA			
			RADILON® S HS	RADILON® S 40E	RADILON® S HSX	RADILON® S USZ200	RADILON® S RCP3010LW	RADILON® S RV300 W	RADILON® S RV350W	RADILON® S ERY3808K	RADILON® S BMX200K	RADILON® S URY600LW	RADILON® A HS	RADILON® A 42K	RADILON® A HSX88	RADILON® A USZ200	RADILON® A RV300W	RADILON® A RV350W	RADILON® A RV500RW	RADILON® A CF300K	RADILON® A ERY130LK	RADILON® D HS	RADILON® D RV300W	RADILON® D 40EP25ZW	RADILON® D 40P50K	RADILON® DT 22D	RADILON® DT RV300RKC2	RADIFLAM® S FR	RADIFLAM® A FR	RADIFLAM® A RV250K AE	RADIFLAM® A RV300 HF	RADIFLAM® A RV350 AF	RADIFLAM® S RV300 HF	RADILON® A RV350HHR	TORZEN® MARATHON G5000XHL	
TENSILE MODULUS	ISO 527-2/1A	MPa	3000/1200	3000/1150	2600/1050	1650/600	8200/6250	9600/6400	11300/7250	8500/5700	1700/700	21000/17000	3400/1300	3250/1600	2550/1400	1650/850	9900/7500	11900/8500	17400/14300	23000/14500	5000/4200	2600/1300	8400/7400	580/340	920/550	2200/	8800/	3350/2450	3450/2600	9500/7300	10200/8800	10700/8050	10700/	10500/7700	16900/	
STRESS AT BREAK/YIELD STRESS	ISO 527-2/1A	MPa	80/45	75/42	65/40	40/20	95/65	180/115	195/120	145/85	45/22	255/185	85/55	85/60	60/40	40/25	190/130	200/150	245/190	255/180	100/75	75/50	145/125	36/33	40/30	60/	165/	75/45	77/50	130/85	155/120	135/105	130/	175/125	247/	
STRAIN AT BREAK/NORMAL STRAIN AT BREAK	ISO 527-2/1A	%	50/>50	>50/>50	55/>100	>100/>100	2.9/10	3.5/8.0	3.5/6.5	3.9/5.1	>100/>100	2.3/2.6	35/>50	>50/>50	>50/>50	90/>100	3.0/6.0	3.1/4.5	2.7/3.0	2.1/2.5	6.2/17	40/>100	3.7/3.9	>100/>100	>100/>100	>100/	3.3/	15/>50	12/>50	2.0/2.2	2.7/3.0	3.3/3.3	2.5/	3.7/6.5	2.4/	
YIELD STRAIN	ISO 527-2/1A	%	4/30	4.1/25	4.2/20	5.0/30	-	-	-	-	15/25	-	4.4/30	4.0/28	5.5/30	10/30	-	-	-	-	4.0/8.0	5.0/15	-	-	55/	15/		3.0/20	-	-	-	-	-	-	-	
FLEXURAL MODULUS	ISO 178	MPa	2600/850	2450/750	2300/	1400/	7700/	8600/	9800/	7650/	1500/	19000/14300	2900/	2900/	2100/	1400/	8800/	10500/	16450/15400	19900/	4300/	2400/	7500/5500	520/300	670/	2200/	7800/	3300/	3200/	8800/	9800/	8800/7000	9500/	9600/7200	16700/	
FLEXURAL STRENGTH	ISO 178	MPa	105/30	100/30	90/	55/	165/	265/	280/	220/	60/	400/280	110/	110/	80/	55/	280/	310/	385/305	370/	150/	95/	220/175	20/15	30/	80/	240/	110/	115/	170/	240/	205/150	200/	275/200	350/	
CHARPY IMPACT STRENGTH, 23°C	ISO 179/1 eU	kJ/m²	NB/NB	NB/NB	NB/NB	NB/NB	45/52	95/110	100/110	80/90	NB/NB	95/115	NB/NB	NB/NB	NB/NB	NB/NB	90/105	95/110	105/112	70/85	75/100	NB/NB	90/95	NB/NB	NB/NB	NB/NB	75/	NB/NB	NB/NB	42/45	65/70	70/75	60/	100/95	115/120	
CHARPY IMPACT STRENGTH, -30°C	ISO 179/1 eU	kJ/m²	NB/	NB/	NB/	NB/	44/	85/	90/	80/	NB/	-	NB/	NB/	NB/	NB/	75/	75/	102/	60/	40/	NB/	85/	NB/	NB/		NB/	NB/	38/	70/	70/	-	100/	-		
CHARPY NOTCHED IMPACT STRENGTH, 23°C	ISO 179/1 eA	kJ/m²	7.5/13	7.4/15	15/65	90/130	6/8.5	15/25	18/33	24/35	90/120	20/22	6.5/15	7/7.5	47/90	100/125	13/20	14/22	18/25	7/9	11.5/15	5/9	11/13.5	95/110	20/35	4.5/	13/	4.5/5	4.5/6.5	10/12	11/14	15/18	-	17/20	16/	
CHARPY NOTCHED IMPACT STRENGTH, -30°C	ISO 179/1 eA	kJ/m²	4.5/	4.6/	10/	85/	5.1/	11/	13/	16/	25/	-	4.5/	5/	13/	80/	11/	13/	16/	5/	4.8	4/	9/	55/	6/		3.5/	4/	7.5/	7/	12/	-	14/	-		
MELTING POINT	ISO 11357-1-3	°C	220	220	220	220	220	220	220	220	220	220	260	260	260	260	260	260	260	260	260	217	217	215	215	215	210	220	260	260	260	260	260	220	260	260
HEAT DEFLECTION TEMPERATURE, 1.8 MPA	ISO 75/2 A f	°C	60	60	60	50	200	200	205	200	55	215	70	75	55	65	240	250	255	240	175	55	200	50	50			55	70	225	220	225	190	240	255	
HEAT DEFLECTION TEMPERATURE, 0.45 MPA	ISO 75/2 B f	°C	170	170	160	135	210	215	215	205	90	-	200	195	170	140	250	-	-	245	230	-	215	-	-	-	-	160	200	-	255	-	-	-	-	260
VICAT SOFTENING TEMPERATURE	ISO 306/B50 50N	°C	190	195	185	150	210	210	210	205	-	-	240	240	210	180	250	250	255	240	235	185	-	-	-	-	-	200	220	240	240	240	240	210	-	-
FLAMMABILITY	UL 94	mm/class	0.8/V2	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/V2	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/HB	0.8/V2	0.8/HB	-	-	-	-	0.4/V0	0.4/V0	0.8/V0	0.8/V0	0.8/V0	0.8/V0	0.8/V0	0.8/HB	0.8/HB
DENSITY	ISO 1183	kg/m³	1140	1140	1110	1060	1330	1350	1400	1310	1070	1690	1140	1140	1100	1060	1350	1400	1580	1300	1220	1080	1300	1040	1095	1065	1290	1170	1160	1570	1410	1430	1440	1390	1570	
PROCESSING			Injection moulding	Extrusion Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Extrusion Blow moulding	Injection moulding	Injection moulding	Extrusion Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Extrusion	Extrusion	Extrusion	Injection moulding	"Extrusion Injection moulding"	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	Injection moulding	

Double entries refer to: Dry as moulded / Cond. RH50 (ISO 1110 conditions).



HIGH PERFORMANCE
POLYMERS

Global Presence

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