

| | 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. |
| 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 RV300RKC2 | 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. |
| 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. |



RADICI NOVACIPS SPA (Headquarters)
 Via Bedeschi, 20 - 24040
 Chignolo d'Isola (BG) - IT
info.plastics@radicigroup.com

The information provided in this document corresponds to our knowledge on the subject as of the date of publication. The information may be subject to revision as new knowledge and experience become available. Data provided fall within the normal range of product properties and relate only to the specific designated material. The data may not be valid for such material if used in combination with any other material or additive, or in any process, unless otherwise expressly indicated. The data provided should not be used to establish specification limits. Such data are not intended to substitute for any testing you may need to conduct to determine the suitability of a specific material for particular purposes.

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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.



| | | | 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 ERV3808K | RADILON® S BMX200K | RADILON® S URV600LW | 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 ERV130LK | 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 | 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 | 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/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 | 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).