



PROFESSIONAL PLASTICS, INC.

Leading Global Supplier of Engineered Plastic Shapes

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Military Rubber Specification » Military Grade Rubber, Mil-Spec

Listed is a wide range of polymers and styles conforming to military and federal rubber specifications.

MIL-R-6855

| Style | Class | Grade | Polymer | Tensile strength psi |
|-------|-------|-------|----------|----------------------|
| M140 | 1 | 40 | Buna N | 1100 |
| M150 | 1 | 50 | Buna N | 1200 |
| M160 | 1 | 60 | Buna N | 1300 |
| M170 | 1 | 70 | Buna N | 1400 |
| M180 | 1 | 80 | Buna N | 1600 |
| M230 | 2 | 30 | Neoprene | 1200 |
| M240 | 2 | 40 | Neoprene | 1300 |
| M250 | 2 | 50 | Neoprene | 1500 |
| M260 | 2 | 60 | Neoprene | 1500 |
| M270 | 2 | 70 | Neoprene | 1600 |
| M280 | 2 | 80 | Neoprene | 1500 |

Specification Grade Calendered Sheet

| Spec | Material | Durometer Hardness | Durometer Tolerance |
|----------------------------|----------|--------------------|---------------------|
| AMS 3205 Low Temperature | NEOPRENE | 50 | +/- 5 |
| AMS 3208 Weather Resistant | NEOPRENE | 50 | +/- 5 |
| AMS 3215 Fuel Resistant | NITRILE | 70 | +/- 5 |
| MIL-G-1149 TYPE1 CL1 GR50 | NEOPRENE | 50 | +/- 5 |
| MIL-G-1149 TYPE1 CL5 GR50 | NITRILE | 50 | +/- 5 |
| MIL-R-2765 | NITRILE | 35-55 | +/- 5 |
| MIL-R-3065D SC 310 F1 | NEOPRENE | 30 | +/- 5 |
| MIL-R-3065D SC 410 F2 | NEOPRENE | 40 | +/- 5 |
| MIL-R-3065D SC 515 F2 | NEOPRENE | 50 | +/- 5 |
| MIL-R-3065D SC 615 F2 | NEOPRENE | 60 | +/- 5 |
| MIL-R-3065D SC 715 F2 | NEOPRENE | 70 | +/- 5 |
| MIL-R-3065D SC 815 F1 | NEOPRENE | 80 | +/- 5 |
| MIL-R-3065D SB 410 F2 | NITRILE | 40 | +/- 5 |
| MIL-R-3065D SB 515 F2 | NITRILE | 50 | +/- 5 |

| | | | |
|-----------------------------------|-------------------------|----|-------|
| MIL-R-3065D SB 615 F2 | NITRILE | 60 | +/- 5 |
| MIL-R-3065D SB 715 F2 | NITRILE | 70 | +/- 5 |
| MIL-R-3065D SB 815 F2 | NITRILE | 80 | +/- 5 |
| | | | |
| MIL-R-6855 1(40) | NITRILE, FUEL RESISTANT | 40 | +/- 5 |
| MIL-R-6855 1(50) | NITRILE, FUEL RESISTANT | 50 | +/- 5 |
| MIL-R-6855 1(60) | NITRILE, FUEL RESISTANT | 60 | +/- 5 |
| MIL-R-6855 1(70) | NITRILE, FUEL RESISTANT | 70 | +/- 5 |
| MIL-R-6855 1(80) | NITRILE, FUEL RESISTANT | 80 | +/- 5 |
| MIL-R-6855 2(40) | NEOPRENE, OIL RESISTANT | 40 | +/- 5 |
| MIL-R-6855 2(50) | NEOPRENE, OIL RESISTANT | 50 | +/- 5 |
| MIL-R-6855 2(60) | NEOPRENE, OIL RESISTANT | 60 | +/- 5 |
| MIL-R-6855 2(70) | NEOPRENE, OIL RESISTANT | 70 | +/- 5 |
| MIL-R-6855 2(80) | NEOPRENE, OIL RESISTANT | 80 | +/- 5 |
| | | | |
| MIL-R-21252 | EPDM | 85 | +/- 5 |
| MIL-R-83285 GR80 | EPDM | 80 | +/- 5 |
| | | | |
| ASTM D 2000 OR MIL-R-3065E | | | |
| M4AA 407 A13 B13 C12 F19 | EPDM | 40 | +/- 5 |
| M2AA 510 A13 B13 C12 F19 | EPDM | 50 | +/- 5 |
| M2AA 610 A13 B13 C12 F19 | EPDM | 60 | +/- 5 |
| M2AA 710 A13 B13 C12 F19 | EPDM | 70 | +/- 5 |
| M2BC 407 A14 B14 C12 E034 F17 | NEOPRENE | 40 | +/- 5 |
| M2BC 510 A14 B14 C12 E034 F17 | NEOPRENE | 50 | +/- 5 |
| M2BC 610 A14 B14 C12 E034 F17 | NEOPRENE | 60 | +/- 5 |
| M2BC 710 A14 B14 C12 E034 F17 | NEOPRENE | 70 | +/- 5 |
| M5BG 407 A14 B14 E014 E034 F17 | NITRILE | 40 | +/- 5 |
| M5BG 510 A14 B14 E014 E034 F17 | NITRILE | 50 | +/- 5 |
| M5BG 610 A14 B14 E014 E034 F17 | NITRILE | 60 | +/- 5 |
| M5BG 710 A14 B14 E014 E034 F17 | NITRILE | 70 | +/- 5 |

| Temperature Range °F | | | | | | | | | |
|----------------------|------------------------------|--------|---------|--|-----|-----|----------|----------------------------|----------------------------------|
| Specification | Elastomer | Static | Dynamic | Fluid or Application Type | Min | Max | Compound | REPLACED BY MATERIAL SPEC. | Comments |
| MILG22050 | ETHYLENE PROPYLENE (EPR) | N.A. | N.A. | hot air, hot water, steam & monoethanolamine | -40 | 230 | 5714-65 | N.A. | N.A. |
| MILP25732 | NITRILE | YES | YES | MIL-H-5606 & MIL-H-83282 | -65 | 275 | 4067-70 | N.A. | N.A. |
| MILP5315 | NITRILE | N.A. | N.A. | aircraft fuels | -65 | 180 | 0457-60 | AMSP5315 | N.A. |
| MILP83461 | NITRILE | YES | YES | AMS 3020 & MIL-H-83282 | -65 | 275 | 4367-70 | AMSP83461 | N.A. |
| MILR2765 | NITRILE | N.A. | N.A. | air petroleum oil & fuel | -20 | 158 | 2159-50 | N.A. | N.A. |
| MILR6855 | CHLOROPRENE (NEOPRENE) | N.A. | N.A. | petroleum oil & weather and ozone | -67 | 212 | 0376-60 | MILR6855 | N.A. |
| MILR83248 | FLUOROCARBON (FLUOREL/VITON) | YES | YES | aircraft fuels & lubricants | 5 | 400 | 9009-75 | AMS7276 | class 1 tolerances required, may |

| | | | | | | | | | |
|-----------|------------------------------|------|------|---|-----|-----|---------|-----------|--|
| | | | | | | | | | need special tool and/or processing |
| MILR83485 | FLUOROCARBON (FLUOREL/VITON) | YES | YES | aircraft fuels & lubricants | -25 | 400 | 9006-75 | AMSR83485 | base elastomer is Viton |
| AMS3215 | NITRILE | N.A. | N.A. | aircraft fuels | -15 | 212 | 4200-70 | N.A. | N.A. |
| AMS3302 | SILICONE | N.A. | N.A. | petroleum-base lube oil & weather resistant | -85 | 401 | 1235-50 | N.A. | N.A. |
| AMS3304 | SILICONE | N.A. | N.A. | dummy loads & petroleum-base lube oil | -85 | 401 | 1235-70 | N.A. | standard o ring size |
| AMS7276 | FLUOROCARBON (FLUOREL/VITON) | N.A. | N.A. | aircraft fuels, lubricants & hydraulic fluids | -20 | 400 | 9009-75 | N.A. | rated for higher temp. and lower compression set than MS9387 or AS3084 |
| AMSP5315 | NITRILE | YES | YES | aircraft fuels | -65 | 180 | 0457-60 | MILP5315 | non-standard o-ring size |
| AMSP5510 | NITRILE | N.A. | N.A. | hydraulic fluid & pneumatic systems | -65 | 160 | 4081-90 | N.A. | hydraulic fluid & excellent low temp. flexibility |
| AMSP83461 | NITRILE | YES | YES | AMS 3020 & MIL-H-83282 | -65 | 275 | 4367-70 | MILP83461 | N.A. |



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