

Reference Data for Disc Spring Material

| Profile | Material | 20 Modulus of Elasticity (KN/mm ²) | tensile strength σ_b /MPa | Yield Strength σ_s /MPa | Elongation rate δ_5 (δ_{10}) (%) | Section shrinkage ψ (%) | Max Thickness mm | Operating Temperature range °C | Application |
|---------------------|--------------|--|----------------------------------|--------------------------------|--|------------------------------|------------------|--------------------------------|--|
| Standard Material | 60Si2MnA | 206 | 1570 | 1375 | (5) | 20 | 25 | -20 till 150 | Plant Construction, Machine tools, Automotive |
| | 50CrV4 | 206 | 1275 | 1130 | 10 | 40 | 25 | -20 till 150 | |
| Corrosion Resistant | SUS301 | 190 | 520 | 205 | 40 | 60 | 3 | -150 till 200 | Food Processing, Chemical Industry, Instrument Industry, Metallurgy , Wind power, Plant Construction |
| | SUS304 | 189 | 520 | 205 | 40 | 60 | 3 | | |
| | SUS316 | 185 | 520 | 205 | 40 | 60 | 3 | | |
| | 17-4PH | 196 | ≥1310 | ≥1180 | ≥10 | ≥40 | 25 | | |
| | 17-7PH | 200 | 1170 | 965 | 6 | 25 | 25 | -200 till 200 | |
| | 15-7PH | 200 | 190 | 170 | 4 | | 25 | | |
| Thermally Stable | 30W4CrVA | 206 | 1470 | 1325 | 7 | 40 | 3 | | Valves, Boilers, Power plant construction, Industrial Furnaces and ovens, Chemical Industry |
| | H13 | 210 | 1740 | 1460 | 10 | 15 | 25 | | |
| | X22CrMoV12 1 | 209 | 800-950 | 600 | 14 | 40 | 8 | -60 till 350 | |
| Anti-magnetic | CuBe2 | 135 | 1200-1400 | 1000 | 3 | | 3 | -250 till 350 | Electronics industry, cryogenic technology |
| High Temperature | Inconel 718 | 200 | 965 | 550 | 30 | | 25 | -200 till 500 | Space flight and aviation, Petroleum and petrochemical, Thermoelectric power |
| | Inconel 750 | 214 | 930 | 515 | 30 | | 25 | -200 till 500 | |
| | Nimonic 90 | 206 | 1267 | 868 | 25 | | 25 | -200 till 600 | |