

| PROPERTY | HIGH PHOS | MID PHOS | LOW-MID PHOS | LOW PHOS | NICKEL BORON | |
|--|-----------------|-------------------------------|------------------|---------------|--------------|------------|
| % PHOSPHOROUS or BORON | 10-13 | 7-9 | 4-6 | 1-3 | 0.2 to 1 | 3 to 5 |
| DEPOSIT DENSITY Range (g/cm ³) | 7.6-7.9 | 8.0-8.2 | 8.3-8.5 | 8.6-8.8 | 8.8 | 8.25 |
| PLATING DEPOSITION RATE (μ/HR) | 7.5-15 | 15-25 | 18-30 | 11- 19 | 5-10 | 5-18 |
| HARDNESS AS PLATED (HK100) | 450-525 | 500-600 | 625-750 | 725-800 | 600-700 | 650-750 |
| ROCKWELL C (Rc) HARDNESS CONVERSION* AS PLATED | 41-46 | 45-51 | 53-59 | 57-61 | 51-56 | 54-59 |
| HARDNESS HEAT TREATMENT (HK100) | 850-950 | 850-1000 | 850-1100 | 900-1100 | 500-600 | 1100-1200 |
| ROCKWELL C (Rc) HARDNESS CONVERSION* AT HEAT TREATMENT | 64-67 | 64-71 | 64-74 | 66-74 | 45-51 | 74-76 |
| TABER WEAR INDEX AS PLATED (mg/1000 CYCLES-CS-10 WHEEL, 1000 g LOAD) | 22-24 | 16-20 | 10-14 | 7-12 | 7-9 | 8-15 |
| TABER WEAR INDEX After HEAT TREATMENT (mg/1000 CYCLES-CS-10 WHEEL, 1000g LOAD) | 10-14 | 10-12 | 7-10 | 6-10 | 7-9 | 3-10 |
| COEFFICIENT OF THERMAL EXPANSION (μm/m/°C) | 8-10 | 10-15 | 11-14 | 12-15 | No data | 11-13 (58) |
| ELECTRICIAL RESISTIVITY (μOHM-CM) | 75-110 | 40-70 | 15-45 | 10-30 | 5-20 (11) | 40-90 |
| THERMAL CONDUCTIVITY (CAL/CM/SEC/°C) | 0.010 | 0.012 | 0.016 | 0.015 | No data | No data |
| TENSILE STRENGTH (MPa) | 650-900 | 800-1000 | 350-600 | 200-400 | No data | 110 |
| DEPOSIT INTERNAL STRESS AS PLATED (TENSILE OR COMPRESSIVE) | NEUTRAL TO COMP | SLIGHTLY TENSILE | SLIGHTLY TENSILE | SLIGHTLY COMP | TENSILE | TENSILE |
| ELONGATION (%) | 1-2.5 | 0.5-1 | 0.5-1 | 0.5-1.5 | No data | 0.2 |
| MODULUS OF ELASTICITY (GPa) | 55-70 | 50-65 | 45-65 | 55-65 | No data | 120 |
| MELTING RANGE (°C) | 880-900 | 880-980 | 1100-1300 | 1250-1360 | 1350-1390 | 1100-1140 |
| COERCIVITY (Oe) | 0 | 1-8 | 10-15 | 15-80 | 10-70 | No data |
| MAGNETIC PROPERTIES AS PLATED | NON-MAGNETIC | SLIGHTLY MAGNETIC TO MAGNETIC | MAGNETIC | MAGNETIC | MAGNETIC | MAGNETIC |