

Grade SLX Extruded Graphite

Since 1886, UCAR Carbon Company has been supplying quality carbon and graphite products, skilled technical service, and experienced application assistance worldwide.

Advanced Graphite Materials

GRADE SLX EXTRUDED GRAPHITE

UCAR® Grade SLX is an extruded graphite.

Typical Applications

- CZ silicon crystal growth
- Quartz processing
- Purified electronic fixturing
- Polysilicon seed chucks

Sizes

24 x 72" diameter rounds
600 x 1800 mm rounds

Typical Properties at Room Temperature

| | <u>ENGLISH</u> | <u>WG</u> | <u>AG</u> | <u>METRIC</u> | <u>WG</u> | <u>AG</u> | <u>SI</u> | <u>WG</u> | <u>AG</u> |
|-----------------------|------------------------------|-----------|-----------|----------------------|-----------|-----------|----------------------|-----------|-----------|
| Density | lbs/ft ³ | 112 | | g/cm ³ | 1.80 | | g/cm ³ | 1.80 | |
| Maximum Particle Size | Inches | 0.030 | | mm | 0.76 | | mm | 0.76 | |
| Specific Resistance | 10 ⁻⁴ Ω in. | 2.8 | 3.0 | μΩm | 7.0 | 7.5 | μΩm | 7.0 | 7.5 |
| Flexural Strength | psi | 3190 | 2755 | kg/cm ² | 224 | 194 | MPa | 22 | 19 |
| Young's Modulus | 10 ⁻⁶ psi | 1.59 | 1.35 | kg/mm ² | 1121 | 949 | GPa | 11.0 | 9.3 |
| Tensile Strength | psi | 2300 | 2030 | kg/cm ² | 162 | 143 | MPa | 16 | 14 |
| Compressive Strength | psi | 8500 | 8500 | kg/cm ² | 598 | 598 | MPa | 59 | 59 |
| Permeability | Darcy | 0.005 | 0.005 | Darcy | 0.005 | 0.005 | Darcy | 0.005 | 0.005 |
| Hardness | Rockwell "R" | 94 | | Rockwell "R" | 94 | | Rockwell "R" | 94 | |
| C.T.E. (to 100 °C) | 10 ⁻⁶ /°F | 1.8 | 2.1 | 10 ⁻⁶ /°K | 3.2 | 3.8 | 10 ⁻⁶ /°K | 3.2 | 3.8 |
| Thermal Conductivity | BTU-ft/hr ft ² °F | 98 | 87 | W/mK | 170 | 150 | W/mK | 170 | 150 |
| Ash Content | ppm | 1500 | | ppm | 1500 | | ppm | 1500 | |

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