

# MICRON E-900 Fine Grain Graphite

Technical Data Sheet 6013

## Product Overview

MICRON E-900 ultra fine grain graphite is suitable for a broad range of electric discharge machining applications that require fine machined detail and superior wear resistance in a variety of service conditions.

## Applications

- Die cast dies
- Blind cavities
- Wire cut electrodes
- Roughing/finishing
- Powdered metal tooling

## Sizes

- 165 x 318 x 635 mm (6.5" x 12.5" x 25") billets

## Typical Properties at Room Temperature\*

| Characteristic              | Unit                 | Value    | Unit                 | Value  |
|-----------------------------|----------------------|----------|----------------------|--------|
| Particle Size               | inches               | <0.00032 | µm                   | <8     |
| Bulk Density                | lbs/ft <sup>3</sup>  | 112      | g/cm <sup>3</sup>    | 1.79   |
| Specific Resistance         | 10 <sup>-4</sup> Ωin | 6.0      | µΩm                  | 15.3   |
| Thermal Conductivity        | Btu/ft-hr-°F         | 42.8     | W/m°K                | 74     |
| CTE (to 100°C)              | 10 <sup>-6</sup> /°F | 2.63     | 10 <sup>-6</sup> /°C | 4.74   |
| Flexural Strength (4-Point) | psi                  | 9,000    | MPa                  | 62     |
| Compressive Strength        | psi                  | 21,800   | MPa                  | 150    |
| Tensile Strength            | psi                  | 8,000    | MPa                  | 55     |
| Sonic Modulus               | 10 <sup>6</sup> psi  | 1.78     | GPa                  | 12.3   |
| Hardness                    | Shore                | 70       | Rockwell "L"         | 114    |
| Purity (Ash)**              | ppm                  | 1600     | ppm                  | 1600   |
| Gas Permeability            | Darcy                | 0.0016   | Darcy                | 0.0016 |

Notes:

\* Properties listed are typical and cannot be used as accept/reject specifications

\*\* For applications requiring low ash, a purified version of this grade is available

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**Redefining limits**