MATERIAL DATA SHEET STEEL GRADE

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95Сг5 🔎

General Information

Imatra C 100 is high carbon grade alloyed with Cr and mainly used for grinding rods in ore processing

Similar designations

E51100

Chemical composition

| Variant | Cast | | С% | Si % | Mn % | Р% | S % | Cr % |
|---------|------|-----|------|------|------|-------|-------|------|
| C100 | сс | Min | 0.90 | - | 0.25 | - | - | 0.80 |
| | | Max | 1.20 | 0.50 | 0.50 | 0.030 | 0.040 | 1.70 |

Mechanical Properties

| Variant | Condition | Format | Dimension [mm] | Hardness |
|---------|-----------|-----------|----------------|------------|
| C100 | +AR | Round bar | < 100 | 340-400 HB |

Rp_{0.2} * R_{eh}, ** R_{el}

Transformation temperatures

| | Temperature °C | | |
|-----|----------------|--|--|
| MS | 220 | | |
| AC1 | 750 | | |
| AC3 | 750 | | |

Other properties (typical values)

| Youngs module (GPa) | Poisson's ratio (-) | Shear module (GPa) | Density (kg/m3) |
|-----------------------------------|---|---|--|
| 210 | 0.3 | 80 | 7800 |
| Average CTE 20- 300°C (µm/m°K) | Specific heat capacity 50/100°C (J/kg °K) | Thermal conductivity Ambient temperature (W/m°K) | Electrical resistivityAmbient temperature (μΩm) |
| 12 | 460 - 480 | 40 - 45 | 0.20 - 0.25 |

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