



SANDVIK SW 821 SPRAY WIRE

DATASHEET

Sandvik SW 821 is an austenitic copper-nickel alloy (CuNi alloy) for use in arc and flame spray systems. The alloy produces dense, well bonding coatings which are resistant to corrosion.

APPLICATIONS

Sandvik SW 821 is typically used in marine applications and in certain chemical applications.

FORMS OF SUPPLY

Contact your local Sandvik office for information on forms of supply.

TYPICAL COATING PROPERTIES

Properly sprayed the wire produces dense, well bonding coatings for oxidation and corrosion protection.

Chemical composition (nominal), %

| | Si | Mn | Fe | Ni | Cu |
|-----|-----|------|------|----|---------|
| Min | - | - | - | 63 | Balance |
| Max | 0.5 | 1.25 | 2.50 | - | Balance |

MECHANICAL PROPERTIES

Wire Diameter 1.6 mm (0.063 in.) at 20°C (68°F)

| | | |
|-----------------------------------|-----------|----------|
| Yield strength, R _{p0.2} | MPa (ksi) | 577 (84) |
| Tensile strength, R _m | MPa (ksi) | 626 (91) |
| Elongation, A | % | 8 |
| Young's modulus | GPa | 178 |

FABRICATION

Machining

Depending on the surface finish requirements, the coating may be machined by turning or grinding. For rougher surfaces, turning using carbide tools, light cuts and efficient cooling to avoid overheating is recommended. Grinding in fine steps using cooling, light pressure and clean wheels gives a smoother finish.

PHYSICAL PROPERTIES

| | |
|------------------------------|---|
| Density g/cm ³ | 8.8 |
| Melting point, °C (°F) | 1350 (2462) |
| Magnetic Properties | The material is slightly magnetic at room temperature |
| Dimension tolerance mm (in.) | + 0/-0.05 (0.002) |

SAFETY

Personnel working with thermal spraying should be aware of the hazards connected to the process. They should be familiar with the use of equipment regarding, i.e. eyes, skin, hearing and respiratory protection.

Personnel should be familiar with safety regulations regarding the complete process, including spraying and the spray equipment used. This product contains elements, which in certain combinations may be dangerous for your health. Safety Information Sheets are provided by Sandvik for this product, and should be read and understood before using the material.

Not following these instructions may endanger your health.

Disclaimer: Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Sandvik materials.