

Ref MA9

## METALLISATION – NICKEL - CHROME

### General properties :

- This alloy offers exceptional properties against corrosion and in particular against oxidation at high temperatures.
- It is well suited for all applications of renovation and reconstruction.
- It is often used for its lovely finish and performance at high temperatures.

### Applications :

- *Resistance to rubbing-corrosion : mechanical equipment for production materials in the chemical industry.*
- *Protection against corrosion : protection of production materials, pipes, valves, flaps, pumps, protecting the environment in the food and chemical industries.*

## TECHNICAL SHEET Ref Ma9

| PROPERTIES   |   |
|--|---|
| Name   | Nickel-Chrome   |
| Symbol   | Ni Cr   |
| Composition %  | Cr : 18 – 22.5<br>Ni : balance<br>C + Mn + Fe + Si + CO < 4 |
| Bulk density   | 7.48  |
| Average porosity %                                   | < 5   |
| Hardness   | 280 HB  |
| Coefficient of expansion                             | $10 \times 10^{-6}$   |
| Maximum working temperature °C                       | 400 mechanical – 1250 in protection                         |
| Melting temperature °C                               | 1400  |
| Electrical resistivity 10 <sup>-6</sup> W cm         |   |
| Thermal conductivity Kcal dry –1° cm <sup>2</sup> cm |   |

| MACHINING BY TOOL  | BLANK   | FINISH |
|--------------------|---------|--------|
| Type of tool       | WCK10   |        |
| Depth of travel mm | 0.1     |        |
| Travel mm / lathe  | 0.08    |        |
| Lubricant          | Oil     |        |
| Cutting speed m/mn | 150     |        |
| Ra µm              | 1.5 - 2 |        |

| ABRASIVE MACHINING | BLANK             | FINISH   |
|--------------------|-------------------|----------|
| Abrasive           | SIC37C            | diamond  |
| Grain              | 80                | 120      |
| Grade              | K                 | 75       |
| Binding agent      | Vitrified         | Metallic |
| Depth of travel µm | 20                | 5        |
| Travel m/mn        |                   | 0.5      |
| Lubricant          | Water + detergent | Oil      |
| Speed of part m/mn | 30                | 20       |
| Wheel speed m/s    | 30                | 40       |
| Ra µm              | 0.8               | 0.4      |

## TREATMENTS AND IMPREGNATIONS

The information provided may be subject to variation depending on individual supplies and applications.

Therefore, any information detailed in this technical sheet is provided in good faith and for guidance only. We cannot be held liable.