

WA1481T Master alloy for mechanical working of

Technical datasheet and guideline for 9 Kt

GENERAL INFORMATION AND RECOMMENDED APPLICATIONS

| | |
|--------------------|------------------------------|
| Typology | Master alloy for gold |
| Production process | Mechanical working |
| Color | White |

| | |
|------------------------------|--|
| Color | Standard white |
| Density [g/cm ³] | 10.8 |
| Melting temperatures | Solidus [°C] 960 Liquidus [°C] 1055 |
| As cast hardness [HV 0.2] | 115 |

Product applications

Ingot casting
 Continuous casting
 Sheet production
 Wire production
 Production of tube from continuous casting
 Hollow chain production
 TIG tube production
 Cladding production
 CNC and lathe production
 TIG tube production

FULL CHARACTERIZATION DATA

| General characteristics | | Mechanical characteristics | |
|--------------------------|----------------|---------------------------------------|-----|
| As cast grain size [µm] | 230 | Tensile strength (Rm) [MPa] | 465 |
| Color coordinates | | Yield strength (Rp0.2) [MPa] | 228 |
| L* | 84.5 | Elongation at rupture (A) [%] | 36 |
| a* | 0.9 | As cast hardness [HV 0.2] | 115 |
| b* | 10.4 | Hardness after 70% area red. [HV 0.2] | 285 |
| c* | 10.4 | Hardness after annealing [HV 0.2] | 130 |
| Color shade | Standard white | Hardness after age-hardening [HV 0.2] | 120 |

CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C]

Metal - from

Flask - from

| | | | | |
|-----------------------------|------|-----------------|------|-----------------|
| Casting temperatures | [°C] | Metal - to [°C] | [°C] | Flask - to [°C] |
|-----------------------------|------|-----------------|------|-----------------|

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C]

| Casting temperature | Metal - from [°C] | Metal - to [°C] |
|----------------------------|-------------------|-----------------|
| Ingot making | 1135 | 1175 |
| Continuous casting | 1155 | 1235 |

| Reccomended reductions | |
|-------------------------------|-----------|
| Sheet - area or thickness [%] | 70 |
| Wire - diameter [%] | 45 |

| Mechanical working recommended annealing | Temperature - from [°C] | Temperature - to [°C] | Time [min] |
|---|-------------------------|-----------------------|------------|
| > 5 mm | 660 | 700 | 40 |
| 1 - 5 mm | 660 | 700 | 35 |
| < 1 mm | 660 | 700 | 30 |



LEGOR GROUP S.p.A. - Via del Lavoro, 1 - 36050 Bressanvido (VI) Italy - tel. +39 0444 467911 - fax +39 0444 660677 - info@legor.com - www.legorgroup.com