



QUALITY TEST CERTIFICATION

| Customer | Total Ingenieros S. A. C. | Alloy No. | C12200 | Order No. | 22HLHK05W401 | Specification | ASTM B88 | Temper | H58 | Quantity | |
|-------------|---------------------------|-----------|--------|--------------------------------|-------------------|----------------|---|--------|--------------|----------|---------|
| Dimensions | Φ 1/2" × 0.89 × 6000 | | | Lot No. | HLTo20220725-2 | Marking | C12200/ H58/Φ1/2"×0.89×6000mm HLTo20220725-2 | | | | |
| Test No. | Tensile Test | | | Cleanness mg/M ² | Hardness HR30T | Ellipticity | | | | | |
| | Tensile Strength Mpa | | | | | | | | | | |
| Requirement | ≥ 250 | | | ≤ 38 | ≥ 30 | ≤ 0.10 | | | | | |
| Sample 1 | 417 | | | 36.50 | 61.00 | 0.04 | | | | | |
| Sample 2 | 419 | | | 36.50 | 61.00 | 0.05 | | | | | |
| Test No. | Chemical Composition (%) | | | | | Dimensions | | | Straightness | | |
| | Cu | P | | | | O. D (mm) | W. T (mm) | L (mm) | | | |
| Requirement | Max. | 0.040 | | | | Avg. ± 0.0012" | | 0.98 | 0 ~ +10 | ≤ 4mm/m | |
| | Min. | ≥ 99.90% | 0.015 | | | | 0.80 | | | | |
| Sample 1 | | ≥ 99.90% | 0.0289 | | | 0.4996* | 0.5004* | 0.83 | 0.95 | 6005 | ≤ 3an/a |
| Sample 2 | | ≥ 99.90% | 0.0289 | | | 0.4992* | 0.5004* | 0.82 | 0.96 | 6006 | ≤ 3an/a |

We hereby certify that the material described in this report has been tested and complies with the requirements of the Order & Standard