



**TEST REPORT CEQ-16-0531-RPR-01**

Rev. 0

Issue date: 05/09/2016

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Customer: **P.B.M. SRL - (Pistoia)**

**Sample No. 160531**

Description: HANDLE

Diameter 21 mm

Wall thickness 0,35 mm

Registration date: 29/07/2016

Testing date(s): 07/10/2016

This Test Report is issued within the Quality Management System of Servindustria Pistoia srl and of his CEQ Laboratory, documented by the Quality Manual and its relevant Procedures. Such a Management System guarantees traceability to carried out measurements to national and international standards of SI measurement units, through a metrological chain originating from first line standards with calibration certificates demonstrating traceability to SI standards, as requested by ISO 9001:2008 (§7.6) and ISO 10012:2003 (§7.3.2) standards.

Copies of the calibration certificates of first line equipment are available upon request.

The reported results have been obtained applying standards and/or technical procedures listed in the following page, and refer only to the equipment/samples submitted to testing, in the status they were at testing time.

Measurement uncertainties eventually declared in this Test Report have been estimated according to EA-04/2 and are expressed as expanded uncertainty, obtained multiplying the composed type uncertainty by a coverage factor  $k=2$ , which corresponds - in case of normal distribution - to a confidence level of about 95%.

Operator G. Gori

Laboratory Chief: G. Gori

**This Test Report has been issued after internal electronic approval and authorization**

*This Test Reports refers only to the tested sample(s)*

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- Design and supply of services for: - Vocational, high, lifelong training and compulsory education - Consultancy on quality management systems - Consultancy on standards and laboratory testing in leather, footwear, textile, wood, furniture and mechanics sectors - Calibration of measuring and testing equipment

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**TEST METHOD: FLEXING ON TUBULAR HANDLES**

Description Handles for blooms and other homeware - Determination of flexing resistance

Reference document Internal method

Test Procedure PT-LAB-2601

**SAMPLING - CONDITIONING**

Sampling: Performed by the Customer

Conditioning before and during test: (23±2) °C / (50±5)% RH

**SPECIMENS**

External diameter: 21 mm Wall thickness: 0,35 mm

Material: Steel with polyurethane coating

**TEST CONDITIONS**

Loading mode: 3-point flexing

Loading speed: 500 mm/min

Span length: 360 mm

**CONFORMITY REQUIREMENTS**

Min. required Flex Resistance: Not specified

**RESULTS**

| Specimen        | Force (N)  | Flexing torque (Nm) | Sigma (MPa) | Notes |
|-----------------|------------|---------------------|-------------|-------|
| 1               | 852        | 77                  | 665         |       |
| 2               | 778        | 70                  | 607         |       |
| 3               | 822        | 74                  | 642         |       |
| 4               | 896        | 81                  | 699         |       |
| 5               | <b>789</b> | 71                  | 616         |       |
| <b>Average</b>  | <b>827</b> | <b>74</b>           | <b>646</b>  |       |
| <b>Min</b>      | <b>778</b> | <b>70</b>           | <b>607</b>  |       |
| <b>Max</b>      | <b>896</b> | <b>81</b>           | <b>699</b>  |       |
| <b>Std.Dev.</b> | <b>48</b>  | <b>04</b>           | <b>38</b>   |       |
| <b>CV</b>       | <b>6%</b>  | <b>00</b>           | <b>00</b>   |       |

Notes: The Sigma value is the maximum normal stress in the tube wall

Operator G. Gori

Laboratory Chief: G. Gori

**END OF REPORT**

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