Metal Test Coupons
AP-8223

AP-8223 Metal Test Coupons

Five samples, 10 pieces per sample
(sample containers labeled with thickness in inches)

- brass (thin) 0.003"
- brass (thick) 0.005"
- cold-rolled (CR) steel 0.003"
- aluminum (AL FOIL) 0.003"
- annealed steel (STL ANNEAL) 0.003"

Note: The metal coupons are packaged in plastic containers to prevent bending or creasing of the coupons.

The AP-8217A Replacement Test Coupons include all of the AP-8222 plastic and AP-8223 metal test coupons.

Introduction

The PASCO AP-8223 Metal Test Coupons are designed to be used with the PASCO ME-8230 Materials Testing System, the AP-8221 Stress-Strain Apparatus (without Coupons), the AP-8214A Stress-Strain Apparatus, and the Model AP-8210 Stress-Strain Apparatus. The ME-8238 Materials Coupon Adapter is necessary for use with the ME-8230 Materials Testing System.

See the manual included with the Materials Testing System or the Stress/Strain Apparatus for information about using the metal test coupons.

Test Coupon Specifications

The data below are intended as a general guide only and do not necessarily represent results that may be obtained. The units for tensile strength and modulus of elasticity are megapascals (MPa or $10^6$ N/m$^2$) and pounds per square inch (psi).
AP-8223 Metal Test Coupons

<table>
<thead>
<tr>
<th>Item</th>
<th>cold-rolled steel</th>
<th>annealed steel</th>
<th>aluminum</th>
<th>brass (thin)</th>
<th>brass (thick)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-sectional area</td>
<td>0.303 mm²</td>
<td>0.303 mm²</td>
<td>0.303 mm²</td>
<td>0.303 mm²</td>
<td>0.506 mm²</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>620 MPa/90,000 psi</td>
<td>300 MPa/44,000 psi</td>
<td>145 MPa/21,000 psi</td>
<td>430 MPa/44,000 psi</td>
<td>430 MPa/44,000 psi</td>
</tr>
<tr>
<td>Tensile elongation</td>
<td>none</td>
<td>42-45%</td>
<td>6%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Modulus of elasticity</td>
<td>200,000 MPa/29,000,000 psi</td>
<td>200,000 MPa/29,000,000 psi</td>
<td>69,000 MPa/10,000,000 psi</td>
<td>117,000 MPa/17,000,000 psi</td>
<td>117,000 MPa/17,000,000 psi</td>
</tr>
</tbody>
</table>

- Nominal length of the narrow section of the test coupon is 80 mm.

Technical Support

For assistance with any PASCO product, contact PASCO at

Address: PASCO scientific
10101 Foothills Blvd.
Roseville, CA 95747-7100

Phone: +1 916 786 3800 (worldwide)
800-772-8700 (U.S)

Web: www.pasco.com
Email: techsupp@pasco.com

For more information about the Metal Test Coupons and the latest version of this instruction manual, visit the PASCO web site at www.pasco.com and enter AP-8223 in the Search window.

Limited Warranty
For a description of the product warranty, see the PASCO catalog.

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