

# Certificate

of

## Softening, Annealing and Strain Points of Glass Standard Reference Materials 712, 713, and 714

### STANDARD REFERENCE MATERIAL 712 MIXED ALKALI LEAD SILICATE GLASS

<i>Laboratory</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>Average</i>
Softening Point, °C_____	528	528	529	528
Annealing Point, <sup>a</sup> °C_____	386	386	385	386
Strain Point, °C_____	352	353	352	352

### STANDARD REFERENCE MATERIAL 713 DENSE BARIUM CROWN 620/603 GLASS

<i>Laboratory</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>Average</i>
Softening Point, °C_____	740	738	737	738
Annealing Point, <sup>a</sup> °C_____	632	630	630	631
Strain Point, °C_____	598	600	598	599

### STANDARD REFERENCE MATERIAL 714 ALKALINE EARTH ALUMINA SILICATE GLASS

<i>Laboratory</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>Average</i>
Softening Point, °C_____	909	908	908	908
Annealing Point, <sup>a</sup> °C_____	711	710	709	710
Strain Point, °C_____	661	663	661	662

<sup>a</sup> No expansion corrections have been made for the annealing and strain point determinations.

### REFERENCES

1. ASTM Designation: C162-56—"Standard Definitions of Terms Relating to Glass and Glass Products".
2. ASTM Designation: C338-57—"Standard Method of Test for Softening Point of Glass".
3. ASTM Designation: C336-64T—" (Tentative) Method of Test for Annealing and Strain Point of Glass".

### LABORATORIES COOPERATING IN MEASUREMENTS

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Washington, D.C.  
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W. Wayne Meinke, Chief  
 Office of Standard Reference Materials

(This certificate supersedes certificate of 10-4-65.)