U. S. Department of Commerce
John T. Connor, Secretary
National Bureau of Standards
A. V. Astin, Director

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

Laboratory	*A*	*B*	*C*	*Average*
Softening Point, °C	528	528	529	528
Annealing Point,[a] °C	386	386	385	386
Strain Point, °C	352	353	352	352

STANDARD REFERENCE MATERIAL 713
DENSE BARIUM CROWN 620/603 GLASS

Laboratory	*A*	*B*	*C*	*Average*
Softening Point, °C	740	738	737	738
Annealing Point,[a] °C	632	630	630	631
Strain Point, °C	598	600	598	599

STANDARD REFERENCE MATERIAL 714
ALKALINE EARTH ALUMINA SILICATE GLASS

Laboratory	*A*	*B*	*C*	*Average*
Softening Point, °C	909	908	908	908
Annealing Point,[a] °C	711	710	709	710
Strain Point, °C	661	663	661	662

[a] 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

Corning Glass Works, Corning, New York
National Bureau of Standards, Washington, D. C.
Owens-Illinois, Toledo, Ohio

Washington, D.C.
October 19, 1966

W. Wayne Meinke, Chief
Office of Standard Reference Materials

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