

ISO 4216:2021 (E)

Thermosetting resin and UV curable resin — Determination of shrinkage by continuous measurement method

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Principle
5	Test methods and test conditions
5.1	Test methods
5.2	Test conditions
6	Number of measurements
7	Apparatus
7.1	Apparatus configuration
7.2	Sample container
7.3	Displacement gauge (thickness meter)
7.4	UV irradiation device
7.5	Heating/cooling device
7.6	Data processing unit
8	Curing method
8.1	UV curable resin curing method
8.2	Thermosetting resin curing method
9	Measurement procedure
10	Expression of results
10.1	Volumetric shrinkage
10.2	Curing shrinkage
11	Test report
Annex A	(informative) Influencing factors on measurement
Annex B	(informative) Examples of measurement result
B.1	Example of volumetric shrinkage of UV curable resin
B.2	Volumetric shrinkage of thermosetting resin
B.3	Example of volumetric shrinkage measurement of a resin that requires thermosetting in addition to UV curing
Annex C	(informative) Example of measurement report
C.1	Listed items example
C.2	Test report (Thermosetting resin example)
C.3	Test report (UV curable resin example)