

DIN EN ISO 307:2019-11 (E)

Plastics - Polyamides - Determination of viscosity number (ISO 307:2019)

Contents	Page
European foreword	3
Foreword	4
Introduction.....	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Principle	8
5 Reagents and materials	8
5.1 Solvents and reagents.....	8
5.2 Cleaning liquids.....	9
6 Apparatus	9
7 Preparation of test samples	10
7.1 General.....	10
7.2 Samples containing less than 98 % (by mass) polyamide.....	11
8 Calculation of test portion	11
9 Selection of solvent	11
10 Procedure	12
10.1 Cleaning of the viscometer.....	12
10.2 Preparation of test solution.....	12
10.2.1 General.....	12
10.2.2 Volumetric method.....	13
10.2.3 Volumetric method, in exact relation to the polymer content.....	13
10.2.4 Gravimetric method, in exact relation to the polymer content.....	13
10.3 Measurement of flow times.....	14
11 Expression of results	15
12 Repeatability and reproducibility	16
13 Relationship between the viscosity number determined in 96 % (by mass) sulfuric acid solution and the viscosity determined in various solvents	16
14 Test report	16
Annex A (informative) Determination of the concentration of commercial sulfuric acid(95 % to 98 %) and adjustment to 96 % by titration	17
Annex B (informative) Determination of the concentration of sulfuric acid (95 % to 98 %) and adjustment to 96 % by flow time measurement in a small capillary viscometer	20
Annex C (informative) Determination of the concentration of commercial formic acid and adjustment to 90 % by titration	22
Annex D (informative) Determination of the concentration of commercial formic acid and adjustment to 90 % by density measurement	24
Annex E (informative) Relationship between the viscosity number determined in 96 % (by mass) sulfuric acid solution and the viscosity determined in various solvents	27
Bibliography	39