

Tentative Specifications for NONRIGID ETHYL CELLULOSE PLASTICS¹



A.S.T.M. Designation: D 743-44 T

ISSUED, 1943; REVISED, 1944.²

These Tentative Specifications have been approved by the sponsoring committee and accepted by the Society in accordance with established procedures, for use pending adoption as standard. Suggestions for revisions should be addressed to the Society at 1916 Race St., Philadelphia 3, Pa.

Scope

1. These specifications cover nonrigid plastics consisting of ethyl cellulose and the necessary plasticizers, dyes, pigments, fillers, and other ingredients, compounded to produce a thermoplastic composition suitable for injection, compression, or extrusion molding. These specifications do not cover special materials compounded for special applications.

NOTE.—The properties included in these specifications are those required to identify the types and grades of nonrigid plastics covered. There may be other requirements necessary to identify particular characteristics. These will be added to the specifications as their inclusion becomes generally desirable and the necessary test data and methods become available.

Types and Grades

2. These specifications cover two types and six grades of nonrigid ethyl cellulose

plastics as shown in Table I. The hardness values at 25 C. (77 F.) and a low-temperature classification of these materials are also shown in Table I.

TABLE I.—TYPES AND GRADES OF NONRIGID ETHYL CELLULOSE PLASTICS.

NOTE.—The hardness values and low-temperature classifications in this table are included in these specifications for purposes of classification only and are not specific requirements to be met.

Type	Grade	Durometer Hardness ^a	A.S.T.M. Hardness ^b	Low-Temperature Classification ^c
I. Molding.....	1...	80 ± 10	46 ± 22	N
	2...	70 ± 10	68 ± 22	F
	3...	90 ± 10	23 ± 22	FF
II. Extrusion....	4...	70 ± 10	68 ± 22	F
	5...	70 ± 10	68 ± 22	N
	6...	80 ± 10	46 ± 22	F

^a Tentative Method of Test for Indentation of Rubber by Means of the Durometer (A.S.T.M. Designation: D 676).³

^b Standard Method of Test for Hardness of Rubber (A.S.T.M. Designation: D 314).³

^c A low-temperature classification of FF indicates that the material does not fail at -70 F., a classification of F indicates that the material does not fail at -40 F., and a classification of N indicates that the material fails at -40 F. when tested in accordance with the Tentative Method of Test for Low-Temperature Brittleness of Rubber and Rubber-Like Materials (A.S.T.M. Designation: D 736).³

¹ Under the standardization procedure of the Society, these specifications are under the jurisdiction of the A.S.T.M. Committee D-20 on Plastics.

By publication of these specifications, the American Society for Testing Materials does not undertake to insure anyone utilizing the specifications against liability for infringement of Letters Patent nor assume any such liability, and such publication should not be construed as a recommendation of any patented or proprietary application that may be involved.

² Revision accepted by the Society at annual meeting, June, 1944.

³ Appears in this publication, see Contents in Numeric Sequence of A.S.T.M. Designations at front of book.