



Provisional Standard Specification for Rods and Tubes of Polyethylene (PE)¹

This provisional standard is issued under the fixed designation PS 106; the number immediately following the designation indicates the year of original adoption.

1. Scope

1.1 This provisional specification covers low, medium, and high density polyethylene rods, and tubes for general purpose, dielectric, and weather resistant applications.

1.1.1 *Coverage*—This provisional specification covers polyethylene rods and tubes made from material conforming to L-P-390.

1.2 *Classification*—Polyethylene rods and tubes include the applicable type, class, and grade (see 3.1 and 6.2) in accordance with Table 1, as follows:

1.3 This specification is intended to replace MIL-P-21922B.

NOTE 1—There is no similar or equivalent ISO standard.

1.4 The values are stated in inch-pound units.

1.5 The following precautionary caveat pertains only to the test method portion, 4.4, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.6 The classification system outlined is intended to be identical to that used by the Department of Defense for many years. No changes are intended at this time.

1.7 Provisional standards² achieve limited consensus through approval of the sponsoring subcommittee.

2. Referenced Documents

2.1 ASTM Standards:

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing³

D 1238 Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer³

D 1505 Test Method for Density of Plastics by the Density and Gradient Technique³

2.2 Federal Standards:⁴

L-P-390 Plastic, Molding, and Extrusion Material, Polyethylene and Copolymers (Low, Medium, and High Density)

TABLE 1 Types, Classes, and Grades of Rods and Tubes

Type	Application	Class 1 ^A	Grade	Color
I	General purpose	L and M	1	natural and colors, including black
			2	natural and colors, including black
			1	natural and colors, including black
			2	natural and colors, including black
		H	3	natural and colors, including black
			4	natural and colors, including black
			5	natural and colors, including black
			1	natural
			2	colors, including black
			3	natural
II	Dielectric	L	4	colors, including black
			1	natural
			2	colors, including black
			3	natural and colors, including black
		M	4	natural and colors, including black
			1	natural
			2	colors, including black
			3	natural and colors, including black
		H	4	natural and colors, including black
			5	natural and colors, including black
III	Weather resistant	L	1	black (carbon 0.5 ± 0.1 % by weight)
			2	black (carbon 2.50 ± 0.5 % by weight)
			3	black (carbon 2.50 ± 0.5 % by weight)
			4	black (carbon 2.50 ± 0.5 % by weight)
		M	1	black (carbon 0.5 ± 0.1 % by weight)
			2	black (carbon 2.50 ± 0.5 % by weight)
			3	black (carbon 2.50 ± 0.5 % by weight)
			4	black (carbon 2.50 ± 0.5 % by weight)
		H	1	black (carbon 2.50 ± 0.5 % by weight)
			2	black (carbon 2.50 ± 0.5 % by weight)

^AL = low density; M = medium density; and, H = high density.
Form A = Rods
Form B = Tubes

PPP-B-585 Boxes, Wood, Wirebound

PPP-B-591 Boxes, Fiberboard, Wood-Cleated

¹ This provisional specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.20 on Plastic Products.

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² Provisional standards exist for two years subsequent to the approval date.

³ Annual Book of ASTM Standards, Vol 08.01.

⁴ Available from Standardization Documents Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.