Poly-Dome™ Test Stations

Scope

This specification covers the material, physical/aesthetic dimensions, and mechanical properties of the polydome test station as provided by ACP International.

This product is meant to be a highly visible marker that houses a cathodic protection and cable location terminal.

Technical Description, Design, Material and Dimensions

The poly-dome, as manufactured by ACP International, shall consist of a single piece, injection molded top portion (Poly-dome), and a UV resistant Polyethylene Post (Post) for the bottom portion.

The ACP poly-dome marker shall be made from a high density polyethylene with a marlex rating of 9018.

The ACP Poly-dome shall be corona-treated to accept printing and/or decal application. Printing shall be done through a silk screen process with UV resistant enamel inks.

The lifespan of the poly-dome and post, assuming average UV and climate exposure, shall remain bold for at least 10 years in an outdoor environment.

During installation, the fully assembled poly-dome marker shall be driven 2 feet into the ground to ensure maximum stability.

The concealed terminal shall be constructed of a clear, fire resistant lexan so as to ensure maximum visibility from both sides without obstruction.

The terminal shall fit 3.5" OD riser pipe, have a high impact resistance, and 9 terminal positions.

The terminal shall be fitted with nickel-plated binding posts with excellent corrosion resistance.

ACP International poly-domes shall be be available in heights of 6', 7', and 8' (as indicated in the part number). The poly-dome itself shall be 18" long and have a print area of 15". The opening of the poly-dome shall be 3 ½" diameter ID and have an ⅛" wall thickness. The terminal shall fit snugly inside the poly-dome and also have ⅛" wall thickness.

The terminal board shall be 3.25" x 3.75" (82.55 mm x 95.2 mm).

Terminus

IMPORTANT NOTICE: ACP International trusts that the user of the product has the most accurate knowledge of how the product might be most efficiently or safely utilized in any given application or environment.

ACP International trusts that the above technical data and product information is based on thorough and accurate testing of the product, but is not liable for any loss or damage to the product (or any other product, employee, or building from which the product might come into direct or indirect contact) resulting from an intentional or unintentional mishandling of the product.

Engineering Specifications

Poly-Dome™ Test Station

	Drawn By:	Approved By:	Date:
ACP INTERNATIONAL	J.Y. Rollins	M. Prince	01/30/19

Mechanical Properties

The terminal board shall have the following mechanical properties:

Property	ISO	DIN	Unit	Test Method	Typical Values
Melt Volume - Flow Rate	1133		cm3/10 min.	300°C x 1.2 Kg	15
Vaicat Sofetening Temperature	306	53460	°C	1 Kg, 50°C/hr 5 Kg, 50°C/hr	148 143
H.D.T.	75	53460	°C	1.80MPa, unanneal 1.80MPa, anneal	127 142
Izod Impact Strength	180/1A	-	kJ/m2	1/8" Notched 1/8" Unnotched	75 75
Charpy Impact Strength	179	-	kJ/m2	Notched Unnotched	70 -
Tensile Strength	527	53455	MPa	50mm/min., Yield 50mm/min., Break	64 70
Tensile Elongation	527	53455	%	50mm/min.	120
Flexural Strength	178	53452	MPa	2mm.min.	90
Flexural Modulus	178	53452	MPa	2mm/min.	2400
Ball Indentation Hardness	2039-1	53456	N/mm2	H358/30	101
Flammability			-	UL-9	0.75mm V-2 1.5mm V-2
Mass Density	1183	53479-A	g/cm3		1.2

Special Properties

When the terminal board is exposed to an open flame for an extended period of time, it is to char, bubble, or melt, but never catch fire. Once the flame has been withdrawn it should cease any kind of burning activity.

The ACP International Poly-Dome shall have the following mechanical properties

Property	Test Metod (ASTM)	Typical Values
Density	D1505	0.952 g/cm3
Melt index	D1238	20.0 g/10 min.
Tensil Strength at Yield 2 in min., Type IV Bar	D638	27 MPa
Flexural Modulus, Tangent - 16:1span:depth 0.5in/min.	D790	1,200 MPa
ESCR, Condition B (100% Igepal), F50	D1693	<10 h
Durometer Hardness, Type D (Shore D)	63	D2240
Vicat Softening Temprerature Loading 1, Rate A	D5125	122°C
Brittleness Temperature Type A, Type 1 Specimen	D746	<-75°C

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