

SUMMARY DATA

ASTM D635-18 (-14,-06) Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position

General:

Client: J&H American Enclosures LLC
 Job Number: JAEL022823-69
 Test Location: *ICC NTA
 Nappanee, Indiana*

Date Received: 4/3/2023
 Construction Date: 4/18/2023
 Constructed By: Dave Lane

Test Variable: Tested polymer concrete specimens per ANSI/SCTE 77 2017
 Proc. Modifications: Specimens were cut to 1-in. wide x thickness received (~0.75-in.) instead of the specified 13.0mm maximum thickness x 13.5mm maximum width per ANSI/SCTE 77 2017

Product Description:

Manufacturer: J&H American Enclosures LLC
 Trade Name/Designation: Polymer Concrete boxes
 Material Description: Polymer Concrete sheet material, varied thickness
 Nominal Specimen Dimensions: 25.4-mm. wide x 127-mm. long x 19-mm. thick
 Specimens were conditioned at 73.4 ± 3.6 and 50 ± 10% R.H. for a minimum of 88 hours before testing

Ambient Conditions:

Ambient Temp.: 71.2° F
 Ambient R.H.: 47.3% R.H.
 Sensor Asset No.: 00586

Apparatus:

Asset No.
 K-Type Thermocouple: 02349
 Thermocouple Reader: 00973
 Timer: 02842
 Chamber: 02334
 Calipers: 02426
 Was flexible support fixture used? No

Test Data:

Performed By: Dave Lane
 Witnessed By: Brian Tedeschi
 Test Date: 4/20/2023

ASTM D5207 Flame Confirmation: Time (sec) from 100 - 700°C:

#1 43 #2 44 #3 45 #4 45 #5 44

Specimen Number	Average Thickness (mm)	Burn after 30-sec flame? (Y/N)	Did flame reach 25 mm mark? (Y/N)	If flame reached 25 mm mark				Observations
				Burned length, L (mm)	Elapsed time, t (sec)	Did flame reach 100 mm mark? (Y/N)	Linear burning rate*, V (mm/min)	
154687	19.6	N	N	N/A	N/A	N/A	N/A	Specimen did not ignite
154688	20.3	N	N	N/A	N/A	N/A	N/A	Specimen did not ignite
154689	20.4	N	N	N/A	N/A	N/A	N/A	Specimen did not ignite
X-1	20.8	N	N	N/A	N/A	N/A	N/A	Specimen did not ignite
Average	20.3	--	--	#DIV/0!	#DIV/0!	--	#DIV/0!	

*Linear burning rate is only required to be calculated if flame reached the 100 mm mark. For classification purposes, the linear burning rate was calculated for all specimens that burned past the 25 mm mark.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire hazards or fire risk assessment of materials, products, or assemblies under actual fire conditions.

Additional Nothing additional to note.

Observations:

This material shall be classified as Class CC1 for the tested thickness per Appendix X2 of ASTM D635

Class CC1: Plastic materials that have a burning extent of 1 in. [25 mm] or less where tested at a nominal thickness of 0.060 in. [1.5 mm], or in the thickness intended for use, in accordance with this test method.

Class CC2: Plastic materials that have a burning rate of 2.5 inches per minute [1.06 mm/s] or less where tested at a nominal thickness of 0.060 in. [1.5 mm], or in the thickness intended for use, in accordance with this test method.

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