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Ignitability according to DIN 4102 - B2

(1 appendix)

Introduction

SP has by request of Wiitta OY performed a fire test according to DIN 4102 – B2. The purpose of the test is basis for technical fire classification.

Product

According to the client: Material for sewage piping consisting of PP-copolymer Lyondell Basell H2464 or equivalent material + 2% color masterbatch. The typical product has a nominal bulk density of 900 kg/m^3 and a nominal thickness of 2 – 6 mm.

Manufacturer

Wiitta OY, Heinola, Finland.

Sampling

The sample was delivered by the client. It is not known to SP Fire Technology if the product received is representative of the mean production characteristics.

The sample was received on January 2, 2014 at SP Fire Technology.

Test results

The product was tested with surface exposure and edge exposure.

The test results are given in appendix 1.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

Criteria

According to DIN 4102, Part 1 (May 1998), section 6.2.1 and 6.2.5, a material is classified as class B2 if the following two criteria are met:

The flame tip must not reach the mark at 150 mm before the end of the 20th second of the test, edge exposure.

The flame tip must not reach the mark at 190 mm before the end of the 20th second of the test, surface exposure.

Assessment

The tested product meets the technical fire requirements mentioned above.

Note

The accreditation referred to is valid for DIN 4102 - B2.

According to DIN 4102-1, a report should normally not be older than five years.

SP Technical Research Institute of Sweden
Fire Research - Fire Dynamics

Performed by

Anna Bergstrand

Examined by

Per Thureson

Appendix

1 Test results

Appendix 1

Test results - DIN 4102, Part 1 - B2 (1998)

Product

According to the client: Material for sewage piping consisting of PP-copolymer Lyondell Basell H2464 or equivalent material + 2% color masterbatch. The typical product has a nominal bulk density of 900 kg/m^3 and a nominal thickness of 2 – 6 mm.

Application

Surface exposure.

Test results

Test no	1	2	3	4	5
The sample ignited, s	NI	NI	NI	NI	NI
The flames reach 190 mm, s	-	-	-	-	-
Burning droplets, Y/N	No	No	No	No	No
Time when filter paper ignite, s	-	-	-	-	-
Damaged length, mm	-	-	-	-	-

NI = No Ignition

Edge exposure.

Test results

Test no	1	2	3	4	5
The sample ignited, s	4-5	4-5	3-4	3-4	5-6
The flames reach 150 mm, s	-	-	-	-	-
Burning droplets, Y/N	No	No	No	No	No
Time when filter paper ignite, s	-	-	-	-	-
Damaged length, mm	-	-	-	-	-

Deviation from standard

The relative humidity in the test room was too low according to standard but it is deemed to be a worst case scenario.

Measured data

Thickness 3.4 – 3.6 mm.

Density 900 kg/m^3 approximately.

Appendix 1

Conditioning

Temperature (23 ± 2) °C.

Relative humidity (50 ± 5) %.

Date of test

January 22, 2014.