

Third Party Approval – Class E, Reaction to Fire

The EPDM rubber material used in Hilti MP-PI Pipe rings has been tested for reaction to fire by SGS, third party laboratories.

Tests have been performed in accordance with requirements of EN ISO 11925-2:2010.

The results are covered by third party report Nr. SP 130603617-2, issued by SGS Ltd. Shanghai, Member of SGS Group. This report is dated 12.08.2013 and signed for SGS-CSTC Standards by Ivy Zhu, SGS.

The report proves the reaction to fire is fully compliant to all requirements which are necessary to classify this EPDM rubber as “Class E” material, according EN 13501-1:2010.

The EPDM rubber used on MP-PI has been classified as Class E, according EN 13501-1:2010, by SGS, third party laboratories.



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ÖR-Nr.: FL-1.011.557-0 | MWST-Nr.: 50 555

The classification made by SGS is documented in the attached SGS report. Please refer to page 3/6 to find the original classification, cited here for your convenience.

IV. Classification

Classification

The product, "RUBBER USED ON "HILTI MP-PI" PRODUCT", classification is as following,

Fire behaviour
E

Reaction to fire classification: E

Remark: The classes with their corresponding fire performance are given in annex A.

***** To be continued*****

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TEST REPORT

No. : SP130603617-2

Date : Aug. 12,2013

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HILTI (SHANGHAI) LTD.

1528 SHEN NAN ROAD, XINZHUANG INDUSTRY PARK SHANGHAI

This Report cancels and supersedes the Report No.: SP130603617-1 dated: July 18, 2013 issued by SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : RUBBER USED ON "HILTI MP-PI" PRODUCT
Sample No. : SP130603617
Test Required : EN ISO 11925-2:2010 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.
Date of Receipt : June 13,2013
Test Period : June 13,2013 to July 2,2013

Test result(s) : For further details, please refer to the following page(s)

***** To be continued*****

Signed for SGS-CSTC Standards
Technical Services (Shanghai) Co., Ltd

Ivy Zhu

Ivy Zhu
Authorized signatory

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I. Test conducted

This test is conducted as per EN ISO 11925-2:2010 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

II. Sample details

Name / Color	RUBBER USED ON "HILTI MP-PI" PRODUCT / Black
Size of sample	250mm×90mm, 6 pcs

	Temperature (°C)	Humidity (%)	Duration (h)
Precondition	23±2	50±5	336
Flame application time	30s		

Remark: Test specimens shall be conditioned at least 48 h before testing, until constant mass is achieved.

III. Test Results

1. Face ignition

Parameter	1	2	3
Occurrence of ignition (Yes/No)	Yes	Yes	Yes
Whether flame reaches 150 mm	No	No	No
Time to reach 150 mm	--	--	--
Ignition of the filter paper (Yes/No)	No	No	No

***** To be continued*****

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2. Bottom edge ignition

Parameter	1	2	3
Occurrence of ignition (Yes/No)	Yes	Yes	Yes
Whether flame reaches 150 mm	No	No	No
Time to reach 150 mm	--	--	--
Ignition of the filter paper (Yes/No)	No	No	No

Remark: "--"means not reached 150mm

IV. Classification

Classification

The product, "RUBBER USED ON "HILTI MP-PI" PRODUCT", classification is as following,

Fire behaviour
E

Reaction to fire classification: E

Remark: The classes with their corresponding fire performance are given in annex A.

***** To be continued*****

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Annex A

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 ^a and	$\Delta T \leq 30^\circ\text{C}$, and $\Delta m \leq 50\%$, and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2.0\text{MJ/kg}$ ^a and $PCS \leq 2.0\text{MJ/kg}$ ^{b,c} and $PCS \leq 1.4\text{MJ/m}^2$ ^d and $PCS \leq 2.0\text{MJ/kg}$ ^e	-
A2	EN ISO 1182 ^a or	and $\Delta T \leq 50^\circ\text{C}$, and $\Delta m \leq 50\%$, and $t_f \leq 20\text{ s}$	-
	EN ISO 1716		
	EN 13823	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
B	EN 13823 and	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure = 30s	within 60s $F_s \leq 150\text{mm}$	

***** To be continued *****

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C	EN 13823 and	FIGRA \leq 250W/s and LFS < edge of specimen and THR _{600s} \leq 15MJ	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure=30s	F _s \leq 150mm within 60 s	
D	EN 13823 and	FIGRA \leq 750W/s	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure=30s	F _s \leq 150mm within 60 s	
E	EN ISO 11925-2 ⁱ Exposure =15s	F _s \leq 150mm within 20 s	flaming droplets/particles ^h
F	No performance determined		

- ^a For homogeneous products and substantial components of non-homogeneous products.
- ^b For any external non-substantial component of non-homogeneous products.
- ^c Alternatively, any external non-substantial component having a PCS \leq 2,0 MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA \leq 20 W/s, and LFS < edge of specimen, and THR_{600s} \leq 4,0 MJ, and s1, and d0.
- ^d For any internal non-substantial component of non-homogeneous products.
- ^e For the product as a whole.
- ^f In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.
s1 = SMOGRA \leq 30m²/s² and TSP_{600s} \leq 50m²; s2 = SMOGRA \leq 180m²/s² and TSP_{600s} \leq 200m²; s3 = not s1 or s2
- ^g d0 = No flaming droplets/ particles in EN 13823 within 600 s;
d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;
d2 = not d0 or d1.
- Ignition of the paper in EN ISO 11925-2 results in a d2 classification.
- ^h Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).
- ⁱ Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.

***** To be continued*****

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Statement: 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.

Sample Photo:



- The test was performed by SGS internal laboratory.

***** End of report *****

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