

# Determination of the fire index of GEMATHERM XC

TÜV SÜD Process Safety · Mattenstrasse 24 · CH-4002 Basel · Switzerland

Sirap Insulation S.r.l.  
via Kennedy 48 / 50  
25028 Verolanuova (BS)  
Italy



Process Safety

Choose certainty  
Add value

## Summary:

### Fire Index:

(derived result of the tests!)

5.1

The examination is accomplished in accordance with : Determination of the fire index (combustibility and smoke formation) according to the "Directives for the prescriptions on the fire police, Materials and part of construction", Part B: Examination conditions, edition 1988 (with complements 1990, 1994, 1995 and 2005) of the "Vereinigung Kantonaler Feuerversicherungen" (VKF), Bundesgasse 20, Postfach 8576, CH-3001 Bern.

Date: 2016-10-13

Our reference: PRS / LA

Report No.922562-16-0569-01

This Document consists of  
3 Pages.

Page 1 of 3

This test report has a validity period from 5 years.

The detailed test results are shown on the table of page 2.

Excerpts from this document may only be reproduced and used for advertising purposes with the express written approval of TÜV SÜD Process Safety.

The test results refer exclusively to the units under test.

Marcel Lasry  
Head of Laboratory

Christian Kubainsky  
Test and Head of Laboratory



The fire index describes the properties of the tested products at effects of heat and flame under controlled laboratory conditions. From this figure no inferences about the fire behavior of the products may be derived under the conditions of a real fire. Conformity with the test specimen will not be verified by the testing institute.



EPSC Member  
European Process  
Safety Centre



Process Safety

**Test object:**

**Sample:** GEMATHERM XC

The sample name corresponds to the information provided by the requester. A further verification was not made.

**Sample Description** XPS-Thermal insulation according to EN 13164.

**according to customer:** Density: 30-45 kg/m<sup>3</sup>.  
 Color: yellow.

20 pieces: approx. 160 x 70 x 6 mm

16 pieces: approx. 60 x 60 x 25 mm.

Volume density measured: ~30 kg/m<sup>3</sup>

The material was provided by the customer

**Receiving Date:** 2016-09-01

**Applied Testing Procedure**

SOP-No.: 241 (Determination of the combustibility degree)

SOP-No.: 242 (Determination of the smoke formation degree)

**Test set-up**

The tests were carried out in the laboratory for fire -, and explosion prevention of the TÜV SÜD Process Safety GmbH in Basel. The testing method is based on empirical bases. The quality of the testing method is supervised by periodic comparison attempts with other laboratories or with reference samples.

The samples were air-conditioned (23°C / 50%rH) during ≥ 28 days according to VKF-guide lines.

**Results and evaluation:**

**Basic test / combustibility test:**

**Thickness:** 6,3 (±2)mm

- Burning time (in seconds)
- attains the height of 150 mm?  
*Rupture of the cotton thread*
- Flame spread in mm  
*Visual observation of the flame tip.*
- Melts to a height of? (mm)
- Some non-flaming droplets?
- Filter paper aflame?

7	6	9	-	-	-
No	No	No	-	-	-
~100	~100	~105	-	-	-
~130	~130	~125	-	-	-
Yes	Yes	Yes	-	-	-
Nein	Nein	Nein	-	-	-

**Fire behaviour:** hardly combustible



Process Safety

**Smoke test:**

Smoke density test (*in cup*):

- Lichtabsorption in %
- Mittelwert

99*	*	*	-	-	-
99%			- %		

*\*For safety reasons, only one test was conducted.*

**Smoke behaviour:** strong smoke formation

**End of experimental part:** 2016-10-06