PLEXIGLAS®

„The Non-Smoker“*

PLEXIGLAS®
the original from Röhm

Evonik. Power to create.

EVONIK INDUSTRIES

Fire! Soon the air is filled with thick, acrid fumes. Only a few seconds later, it's impossible to see where you are. You can't see the fire-fighters, and they can't see you. You breathe in a dangerous mixture of different smoke gases. Shortly after, you are unable to escape. You are in grave danger.

You can influence this scenario by installing PLEXIGLAS®. Tests on the smoke density of materials prove that: *it burns almost without smoke. Moreover, PLEXIGLAS® is toxicologically inoffensive in the event of fire.

These are invaluable safety benefits.

Smoke can be fatal within just a few moments!

Fires often spread rapidly to other combustible materials. These frequently produce so much smoke that you can no longer see your hand in front of your face just a few seconds later. Soon, exit signs are no longer visible.

Moreover, many materials also generate acutely toxic gases.

Both aspects are extremely dangerous and may be fatal within a matter of moments. Various technical publications describe how some 80 % of all fire victims die of smoke poisoning rather than the fire itself.

Fires cannot always be prevented, but they can be influenced by the use of suitable building materials.

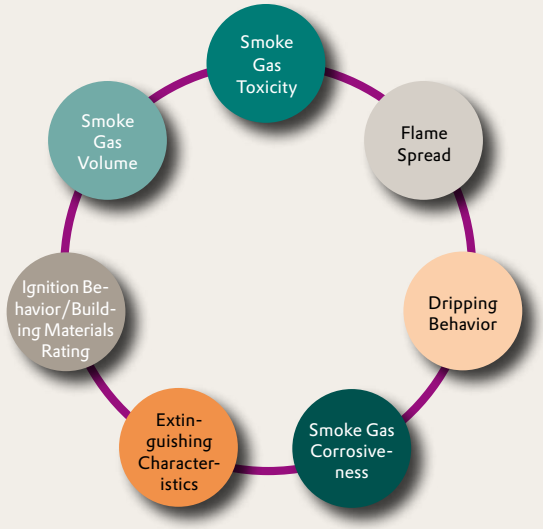
* PLEXIGLAS® burns almost without smoke.

Fire Safety Aspects

Fire safety experts rate material properties according to various safety aspects. PLEXIGLAS® offers high fire safety potential. PLEXIGLAS® burns almost without smoke, forms no acutely toxic gases to DIN 53436, and is quick and easy to extinguish.

According to German standards, PLEXIGLAS® is normally flammable, B2 to DIN 4102.

Moreover, PLEXIGLAS® is rated in European Class E, without burning droplets, according to DIN EN 13501.



This folder shows the fire behavior of PLEXIGLAS® based on German standards. However, each country has different fire safety regulations. Please contact us for the material's fire rating according to the regulations that apply in your country.

Test Methods Comparable to DIN 4102 to Assess the Smoke Density of Building Materials

- * PLEXIGLAS® burns almost without smoke. (DIN 4102 and European Class E, DIN EN 13501)
- PLEXIGLAS® forms no acutely toxic smoke gases (inoffensive), DIN 53436.
- PLEXIGLAS® burns without corrosive smoke gases, DIN VDE 0482-267.
- PLEXIGLAS® can be easily extinguished with water.
- PLEXIGLAS® is approved as a building material for interior and exterior applications.
- PLEXIGLAS® is employed in public constructions such as schools and kindergartens.
- PLEXIGLAS® has been approved for decades by the aviation industry for use in window glazing.

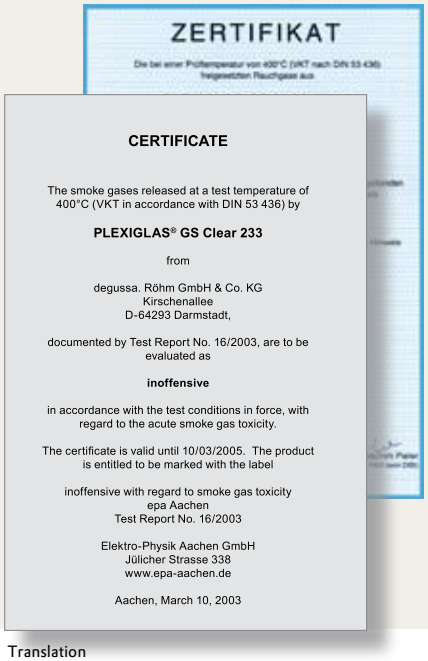
The photos show a test duration of approx. 90 seconds

Smoke formation of PVC, PS, SAN, PC, PETG, shown here by the example of PC (rated B1, flame-retardant, to DIN 4102)

Smoke formation of PLEXIGLAS® (rated B2, normally flammable, to DIN 4102)

Smoke Gas Toxicity

DIN 53436 rates the acute toxicity of smoke gases. The smoke gases produced by PLEXIGLAS® are inoffensive according to this standard.



ZERTIFIKAT

CERTIFICATE

The smoke gases released at a test temperature of 400°C (VKT in accordance with DIN 53 436) by

PLEXIGLAS® GS Clear 233

from

degussa. Röhm GmbH & Co. KG
Kirschenallee
D-64293 Darmstadt,

documented by Test Report No. 16/2003, are to be evaluated as

inoffensive

in accordance with the test conditions in force, with regard to the acute smoke gas toxicity.

The certificate is valid until 10/03/2005. The product is entitled to be marked with the label

inoffensive with regard to smoke gas toxicity
epa Aachen
Test Report No. 16/2003

Elektro-Physik Aachen GmbH
Jülicher Strasse 338
www.epa-aachen.de

Aachen, March 10, 2003

Translation

® = registered trademark

PLEXIGLAS®
is a registered trademark of Evonik Röhm GmbH,
Darmstadt, Germany.

Certified to DIN EN ISO 9001 (Quality) and
DIN EN ISO 14001 (Environment)

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Ref-No. 211-8 March 2008
XX/0308/09539 (en)

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