



DESIGNED,  
DEVELOPED  
AND MADE  
IN GERMANY



evguard®  
Fire Classification and Reaction to Fire

# Description



Fire incident in buildings and the harmful spreading of fire can endanger the life to the human and environment. For that reason, laminated safety glass used in building and construction applications needs to be classified to its behavior in case of fire.

Folienwerk Wolfen GmbH ordered an independent test institute to test their laminated safety glass both for the fire classification and reaction to fire.

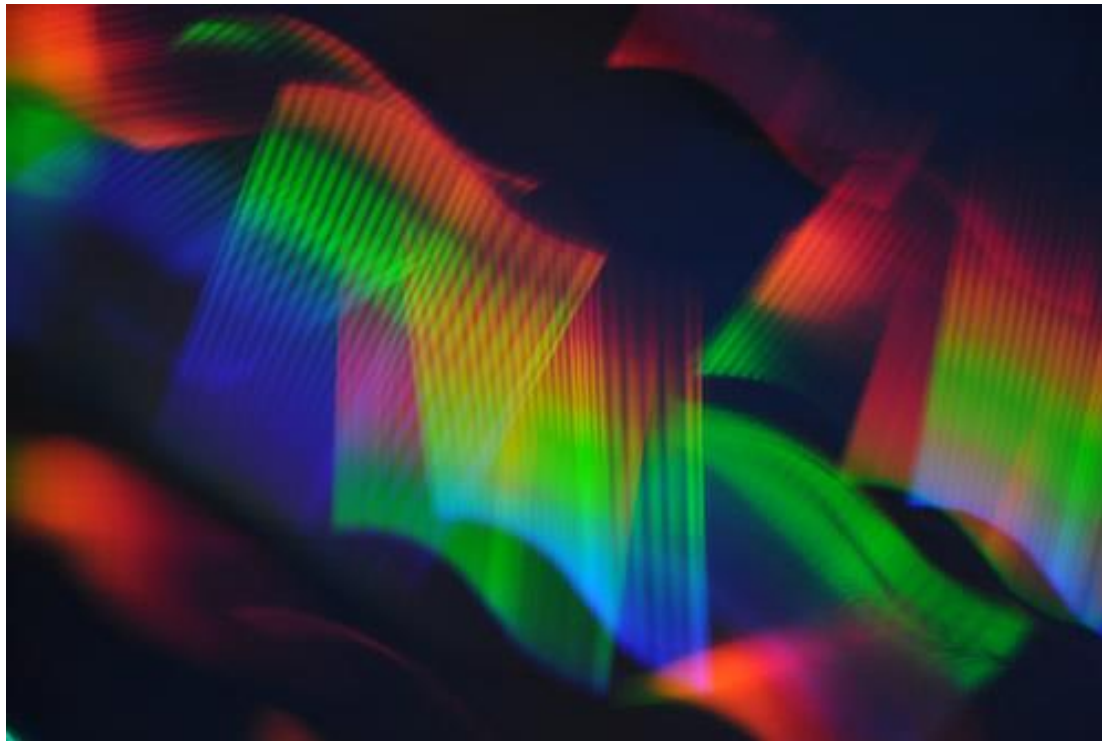


Image 1. Prism 2\_Michael Banks

# Facts



For the fire classification according to DIN EN 13501-1:2019-05, a free standing evguard® laminated glass, distanced from 80 mm from other flat surface was exposed to the fire to both of the surface and the edge.

The reaction to fire test according to DIN EN ISO 11925-2:2020-7 has been performed for the evguard® laminated safety glass to determine the ignitability of the sample and ignition to the other materials.

The reaction to fire in the single burning test was performed in accordance with DIN EN 13823:2020-09. Test specimens without joints and with normative joints were constructed vertically under zero impressed irradiance.

Image 1-2. Test sample with evguard® laminating film after fire classification test according to DIN EN 13501-1:2019-05. Fire behaviour, smoke production and burning droplets were classified according to the norm. Physical discoloration of the glass sample after exposing to fire (left/right)

MPA Dresden, Report 20210824/01  
(2022-02-02)



# Conclusion



The fire classification test and reaction to fire was carried out by MPA Dresden GmbH on laminated safety glass samples made of products from the evguard® laminating film. The sample was exposed to the flame from the pre-defined distance both from the flame (5 mm to 10 mm) and from the backing boards (80 mm).

The results of the investigation on LSG made with evguard® are shown in the following tables.

Test name	Test Standard	Fire Behaviour	Smoke Production	Burning droplets
Fire Classification	DIN EN 13501-1:2019-05	B	s1	d0

Test Name	Test Standard	Ignition	Ignition to the Filter Paper	Incidents Through the Test
Reaction to Fire Test	DIN EN ISO 11925-2:2020-7	NO	NO	N/A
Reaction to Fire Test (SBI)	DIN EN 13823:2020-09	NO	N/A	No after burning