



# Flame Shield NBS Fire-resistant PU-foam

Fire-resistant sealing of connections, joints and seams of for instance: partition walls with ceilings/floors, partition walls with other partition walls, spaces between window- or doorframes and walls (take precautionary measures for weak building parts), spaces and mounting spaces between prefab elements and connection joints in floors.

## Material

A one component fire-resistant polyurethane foam that cures as a result of a reaction with the humidity in the air. CFC- and HCFC-free (not harmful to the ozone layer). Particularly suitable for the fire-resistant sealing of constructional joints.

## Product Characteristics

- Light grey colour
- Fire-resistant, smoke- and gasproof
- Excellent dimensional stability
- Resistant against heat, water and many chemicals
- Can be painted and covered with plaster

## Fire-resistance

Connections between stony materials were tested in accordance with NEN 6069 (TNO B-91-0045 / 96-CVB-R0502). In compliance with ISO 834, BS 476 part 8, NBN 713.020.

## Delivery form

700 ml aluminium cans

## Technical specification

Basis:	polyurethane prepolymer
Cure:	humidity
Character:	flexible
Density:	mass 20-28 kg/m <sup>3</sup>
Yield:	approx. 37 liter freely foamed
Fire-resistance:	NEN 6069 > 1 hour IBMB tested DIN 4102, part 2 F90 (moving and static joints)
Flame extension:	NEN 6065 class 1
Tack-free:	after approx. 10 min. at +23°C and 50% relative humidity
Can be cut:	(30 mm bead) after approx. 60 min. at +23°C and 50% relative humidity (30 mm bead) after approx. 24 hrs. at +23°C and 50% relative humidity
Bear weight:	
Heat conductivity coefficient:	52612 25-30 mW/m.K
Compressive stress:	ISO 844 (10% deformation) 75 kPa
Tensile strength:	DIN 53455 60 kPa
Elongation at break:	DIN 53455 20%
Shear strength:	DIN 53422 30 kPa
Water absorption:	DIN 53428 0.3 vol. %
Temperature resistance:	-40°C up to +90°C (long term – user phase) -40°C up to +130°C (short-term)
Shelf life:	max. 9 months, store cool, dry and upright





### Joint dimension

Minimum joint width 6 mm.

Maximum joint width 40 mm.

The fire-resistance of Flame Shield fire-resistant PU-foam is dependent on: the width and depth of the joint that has to be sealed and the type of construction. The fire-resistance could be increased by the application of an additional fire-resistant coating (Flame Shield F60 Fire-resistant Foaming Coating).

### Application temperature

Ambient +5°C up to +35°C.

Can +10°C up to +30°C.

### Surfaces

Excellent adhesion on concrete, brickwork, stone, plaster, wood, fibre cement, metal and synthetic materials, for example polystyrene, PU-foam, polyester and hard PVC. Surfaces should be sound and free from dust and grease. Porous surfaces should be moisturized before foaming. Powdery surfaces should receive preliminary treatment with a primer.

### Application

Shake can well before use and screw the can onto the gun in accordance with the directions for use. The amount of foam can be regulated by the trigger and the flow adjuster on the back side the gun. Fill the joint for approx. 50%. Apply foam in several layers in case of larger joints with intervals of 1-2 hours. In case of temperatures about freezing point, the joints should be filled further after approx. 4 hours.

### Cutting off

Wait at least 4 hours with cutting off protruding foam at low temperatures. The rate in which the foam can be cut is also dependent on the relative humidity.

### Important recommendations

Read the information in the danger square on the label of the can carefully before application. Use only in well ventilated areas. No smoking. Protect eyes and wear gloves and protective clothing. Cover the floor with paper or plastic foil. Remove fresh PU-foam immediately with PU Cleaner. Cured foam can only be removed mechanically. Store can upright to avoid adhesion of the valve.

### Safety recommendations

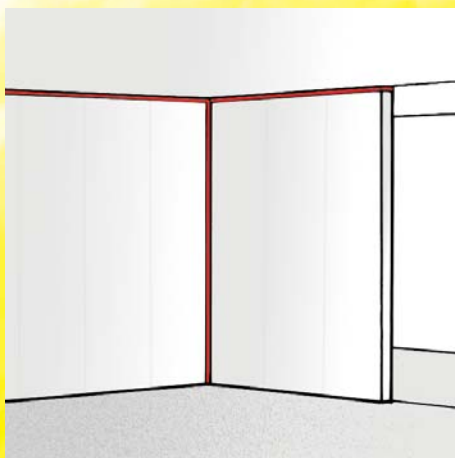
We refer to the Safety Data Sheet.

### Fire-resistant building

In the process of fire-resistant building, details determine the effectiveness. The joint width and wall thickness should therefore be indicated in the specification of fire-resistance. The application of Flame Shield Fire-resistant PU-foam prevents the penetration of flames, smoke and toxic gases. The Building Decree includes specific requirements for the resistance against the transfer and penetration of fire between the different building compartments.

### Service

On request, the illbruck organisation is ready to offer you support at all times.



linear connections

