Noise Fire Stop®







Sound Absorption Products For Generator Canopies



1 - DEFINITION

NOISE FIRE STOP foams are open-celled, impregnated polyurethane foam for acoustical and thermal insulation. It's absorbed a mineral component which increases the ability of flameless; it has a great performance in ignition resistance tests.

NOISE FIRE STOP - does not support combustion, melt and drip. It is not affected by any bacteria and doesn't shelter. The foam shape and mineral structure of NOISE FIRE STOP never changes. The products have a uniform appearance, high sound absorbing properties and thermal properties. Plane NOISE FIRE STOP meets several flame behavior standards.

2 - TECHNICAL DATA

a) Physical Specifications:

| Colour | Black |
|--------------------------|----------------------|
| Nominel Density Range | 75 -100 kg / m3 |
| Nominel Hardness Range | 120 -108 Newtons |
| Elongation at Break | not less than %90 |
| Nominel Tensile Strength | not less than 70 kpa |
| Operating Temperature | - 40 0C, +110 0C |

b) Fire Resistance Test Summary:

BS 476: Part 5 - Ignitability

Class P

BS 476 - Part 6 - Fire Propagation

Low contribution to fire growth with Fire Propagation Indices not exceeding I = 12 and I = 6

BS 476 Part 7 - Surface Spread of Flame

Very low surface spread of Flame-Class 1

Insulation which meets the required combined standards as detailed above for BS 476: Part 6 and 7 are rated Class '0' to the UK Building Regulations.

ASTM D - 2863 Limited Oxygen Index 45%

Directive 95 / 28 / EC $\,$

The burning behavior of materials used in the interior construction of certain categories of motor vehicle. The requirements concerning the burning behavior according to annex IV (horizontal direction) are met. The requirements concerning the melting behavior according to annex V are met. Horizontal burning rate: 0 mm/min.

c) Sound Absorption Values:

| | ACOUSTIC PERFORMANCE | | | | | |
|-----------|----------------------|--------|--------|---------|-------------|---------|
| Thickness | Sound | Absorp | tion | | Coefficient | |
| (mm) | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz |
| 24,5 | 0.09 | 0.22 | 0.38 | 0.52 | 0.63 | 0.73 |
| 22,6 | 0.17 | 0.28 | 0.46 | 0.48 | 0.77 | 0.85 |
| 20,7 | 0.24 | 0.47 | 0.75 | 0.84 | 0.87 | 1.02 |
| 18,8 | 0.06 | 0.09 | 0.18 | 0.29 | 0.38 | 0.58 |

d) Possible Post Treatments

The product is available with a self adhesive backing and a wide variety surface finishing. The product can be supplied in composite form with lead or polymeric barriers and damping sheets

I - PU film (protective film): 35H (mikron) polyurethane film to resist to grease, oil and water

II - PSA : Self adhesive, resistant to max 80iC, Modified Acrylic, Liner is Silicone

The most preferred

NOISE FIRE STOP Flame Prof Acoustical Foams by Generator Compaines

- 30 mm thickness NOISE FIRE STOP foam
- 50 mm thickness NOISE FIRE STOP foam
- Protective film faced 30 mm thickness NOISE FIRE STOP foam
- Protective film faced 25 mm thickness NOISE FIRE STOP foam with PSA self adhesive layer
- Eggcrate (viyol) formed NOISE FIRE STOP foam 40 mm total thickness (20 mm + 20 mm)

These products are chosen by companies after many tests in their canopies. Each product has different acoustic performance in different canopies.

TEKSAN can just advise the best alternatives which used more in market. So TEKSAN advises that to test and then use to have the best performance.

The tolerance regarding thickness is \pm 1 mm for the products up to 15 mm and \pm 2 mm for the products of thickness 20 and above.

3 - INSTALLATION

Adhesive Systems used in canopies

1 - Water based / Solvent based Adhesives

NOISE FIRE STOP products can be easily installed on any clean surface (concrete, plaster, wood, metal, plastic, etc) by using an appropriate organic based or water dispersion glue. When needed, the sheets and rolls can be easily cutted by a Stanley knife. For the best acoustic performance and good appearance, the sheets should be also glued among them perimetrically.

2 - Self Adhesive layer

The products can be with self adhesive layer at the back. So it's easy and fast to apply, safe and no risks to breathe the glue.

3 - Without any adhesive to use Hanger Kits

Attention: 1) The use of organic solvent glue can cause damage to the products. Before using such glue it is suggested to make a trial.

2) Since the products are flexible, for die aligned installation on big surfaces (ceiling, walls etc) before you start the gluing of the sheets you must mark the surface where they will be fixed with straight marks In distance equal to the dimensions of the products (ie every 500 mm or 1000 mm).



4 - PACKING

In sheets: 2000 mm x 1000 mm

All goods are covered by polyethylene film.

| Thickness mm | # of Sheets in one packing | Total square meter per each packing | App weight of each packing | Optimum loading in 40 HC |
|-----------------|-------------------------------|--|-------------------------------|-----------------------------|
| | | m2 | kg | |
| 25 | 6 | 12 | 21 | 2736 sqm = 1368 sheets |
| 30 | 5 | 10 | 21 | 2288 sqm = 1144 sqm |
| 50 | 4 | 8 | 28 | 1368 sqm = 684 sheets |
| 40 mm Eggcrate | 6 | 12 | 25 | 2280 sqm = 1140 sheets |

Comparison Table of NOISE FIRE STOP® and 30D Acoustic foams

| | NOISE FIRE STOP® | Standard 30 density foams |
|--|--|--|
| Density of foam | 70 ± 5 kg/m3 | 30 ± 2 kg/m3 |
| Foam Type | Impregnated Foam | Slabstock Foam |
| Fire Behaviour | BS 476 part6 & BS 476 part7 Class 0 | SELF-EXTINGUISHING UL 94 HF1 |
| Speed of burning | 0 mm per minutes | Min 50 mm per minutes |
| Gas | Contains minerals(85%) so cause min gas outs | %100 burns and %100 of it cause gases |
| Please burn with match and see the difference | when it burns | it cause gases |
| Orop Effect | NEVER drips | When it burn, They will completely DRIP. |
| Please burn with match and see the difference | | completely Bin. |
| Structure after burning | Protects its structure after burning and can still | Lost all the structure |
| Please burn with match and see the difference | insulate the noise | |
| Sound Absorption Capacity | % 40 higher and very successful at low | Very low and unsuccessful in low |
| позограон Сараску | frequencies | frequencies |
| Antibacterial. It Does Not get moldy, stink when stayed wet. NOISE FIRE STOP® have SANITIZED AG certificate. | | When it is wet. It will get moldy and stink |
| Thermal resistance | - 30°C > + 130°C | - 20°C > + 100°C |
| Color | Black | Anthracite / Grey |

