

POLYMERS

# SABIC® EPS 760FF

## Expandable Polystyrene Fire Retardant Grade

### Product Description

Fire retardant expanded Polystyrene EPS 760FF is manufactured by the suspension polymerization of styrene monomer. The polymerization is generally carried out in a batch process and it contains a fire retarding additive in the formulation. EPS 760FF is an expandable polystyrene grade supplied in free-flowing beads containing pentane (CFC free) as a foaming agent.

### Typical Applications

EPS 760 FF grade is used for low density block molding applications, such as AC ducts, cold storage and thermal insulation. EPS 760 FF has retarded ignitability and the moldings made from it will conform to the requirement of DIN 53438 class K1 and K2.

### Processing

EPS 760FF is processed in three steps:

- Pre-expansion.
- Maturation and molding.

EPS 760FF is heated by steam at 100°C in a pre-expander. The foaming agent present in the polystyrene beads vaporizes and mixes with steam. The gas mixture so produced subsequently softens the beads and expands them to 30-40 times to its initial size. In maturation process the foaming agent and steam condense in the cells of the pre-foamed beads causing partial vacuum, which is compensated by the diffusion of air into the beads. The maturation period could be between 3 and 24 hours. In the molding process the matured pre-foamed beads can further be processed by direct steam to the desired shape molding.

### Typical data

Properties	Unit	Value (1)
Bead Distribution	mm	1.2 - 2.5
Minimum Density*	Kg/m <sup>3</sup>	15
Normal Density Range	Kg/m <sup>3</sup>	15 - 25

\* One pre-expansion, lower density can be achieved by multiple pre-expansions.

### Handling & Health Safety

EPS 760FF presents no toxic hazard when handled under normal conditions. Excessive exposure to high concentration of pentane should be avoided. EPS 760FF is not intended to be used where there is possibility of contact with food.

### Packaging

EPS 760FF is supplied in 1 MT semi bulk cardboard containers (octabins).

## Storage and Fire Precautions

EPS 760FF grade contains flammable foaming agent, pentane, which can form explosive mixture with air. Hence, expandable polystyrene should be stored in closed containers below 25°C. Storage and processing areas should be adequately ventilated. Source of ignition like smoking, sparks, welding and naked flame should be strictly avoided. Should fire occur, the processor should use dry powder or carbon dioxide extinguishers, particularly in the area of hot wire cutting machines.

## Food Regulation

EPS 760FF is not intended for food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

Saudi Basic Industries Corporation, P.O. Box 5101, Riyadh 11422, Kingdom of Saudi Arabia

Tel: 966 1 2258000

Fax: 966 1 2259000

Technical Marketing

Tel: 966 1 2659166

Fax: 966 1 2653544

Website: [www.sabic.com](http://www.sabic.com)

NOTICE: The information and data contained herein are believed to be correct and given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of product, no warranty is given or is to be implied with respect to such information, nor do we offer any immunity against infringement.