

## EXPANDED POLYSTYRENE - TECHNICAL INFORMATION

### TYPICAL PHYSICAL PROPERTIES

End product - Expanded Polystyrene (EPS)

10 kg/m 15 kg/m<sup>3</sup> 20 kg/m<sup>3</sup> 30 kg/m<sup>3</sup> 40 kg/m<sup>3</sup>

#### Compressive stress (10%)(kPa)

35 75 115 200 300

#### Bending strength

(kPa) 100 170 240 390 560

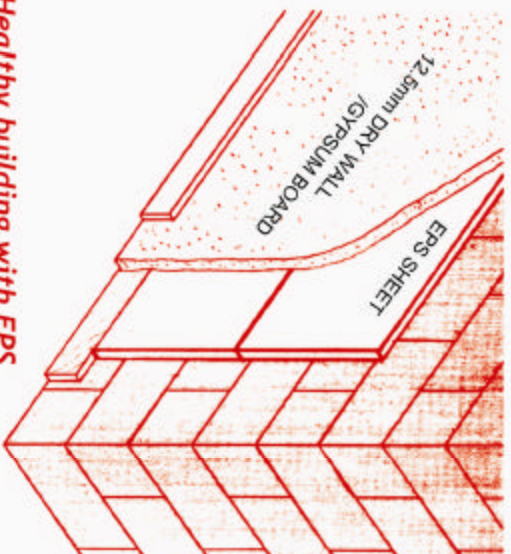
#### Heat conductivity (110)

(W/mK)

0.045 0.038 0.035 0.033 0.032

### Recycling

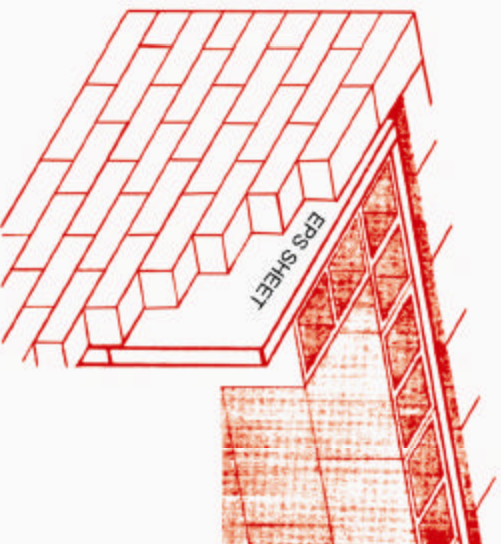
Expanded Polystyrene is suitable for recycling using modern methods of grinding, cleaning and re-granulating. In-house production waste is kept clean to facilitate direct recycling.



### Healthy building with EPS

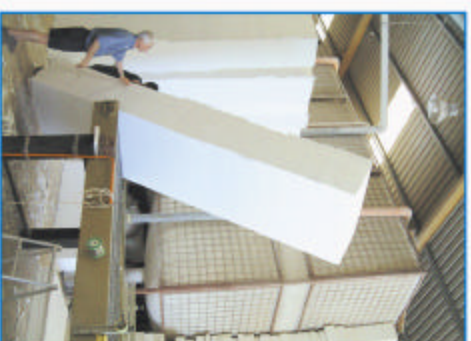
Expanded Polystyrene (EPS), is a material which is used extensively in the building industry as an insulator, as well as being a natural choice for packaging purposes. EPS has many positive attributes, not the least of which is its proven safety record during all stages of its life cycle - from production, during use, through to re-use or recycling.

Health and safety are of paramount importance in everyday life. It is therefore not surprising that health and safety take top priority in the building industry. However, the evaluation of building materials is not only concerned with technical specifications, but with factors such as total environmental impact.



The increasing demand for sustainable buildings means that the building industry has had to take a fresh look at the materials it uses, and the way it uses them.

Insulation is of course a necessity in any building. But most materials used for insulation are not readily associated with safety and good health. There is one insulation material however, which scores particularly high when it comes to health and safety: EPS, whose physical properties make it an ideal insulation material.



#### Health in use-indoor environment

Indoor climate quality is of prime importance when a building is in use, both for the health of the occupants and for the continued stability of the building itself. Good thermal insulation is known to contribute to a comfortable interior, and it is recognized that insulation and ventilation should go hand in hand.

When the right materials are used, the lifespan of a building increases considerably. In considering climate quality the following parameters come into play:

#### Moisture

Moisture in buildings is one of the greatest problems faced by builders. It can lead to fungal growth, undermining the integrity of the structure, and creating a poor, unhealthy indoor environment. Remarkably, EPS is virtually insensitive to moisture, and will absorb almost no water even when immersed for long periods. This means that moisture has virtually no effect on EPS insulating products after installation, and the original insulating value of EPS is therefore guaranteed for a long time.

#### Pests

Although an unpleasant thought, insulating materials can be attacked by pests. As far as is known EPS insulation is not attacked by pests whereas this is not always the case when alternative insulating material are used.