



PHENOLIC FOAMS

The exceptionally high level of closed cells and the fine cell structure gives phenolic foam excellent thermal properties. Closed cell phenolic foams are the most thermally efficient insulation materials commonly available. The product is manufactured in a number of forms including blocks, continuously produced flexible faced laminate, rigid faced laminates and composite panels in addition to highly specialised applications such as fire doors and moulded products. Being based on a phenolic resin it has outstanding fire characteristics and extremely low smoke emission when exposed to a flame source.

Phenolic foam is used extensively in industrial heating and ventilation applications such as pipe and duct insulation. It is also used in building applications such as roofing, flooring, cavity walls, sarking and in the food processing industry for steel faced panels.

Questions are occasionally asked about any possible corrosive effects of insulation and with regard to phenolic foam, these questions usually refer to its use on copper pipework.

Corrosion science is an exceptionally complex subject and the corrosion process takes many forms depending on a range of factors, such as the presence of inclusions or surface contamination on the pipework, the homogeneity of its structure, the nature of the corrosion medium (electrolyte), incident environmental factors such as the presence of oxygen or salt laden air, pollution, temperature and other factors such as stress, oxide scales, deposits on surfaces, galvanic effects between dissimilar metals and the occasional presence of stray electrical currents from external sources.

It must be emphasised, however, that all insulation materials contain some leachable species which, if a number of the above adverse factors coincide could play a role in an electrolyte corrosion process in the presence of oxygen and moisture.

In view of this fact it is essential that all insulation systems are designed and installed correctly. EPFA recommend that phenolic foam should be installed according to BS 5970 : 1990 in conjunction with the detailed specification installation guides published by individual EPFA members.

EPFA can state categorically that phenolic foam products manufactured by its members do not present an enhanced corrosion risk in comparison to other commonly used insulation materials. This point has been proven over many years through comprehensive third party testing and in-service experience. Phenolic foams manufactured by EPFA members can therefore be specified with absolute confidence with reference to the appropriate specification.

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