

Formaldehyde and Volatile Organic Compounds (VOC) have been identified as a major contributor to poor indoor air quality. Prolonged exposure to these substances may result in chronic health complications such as headache, itchy eyes, throat irritation, fatigue, nausea etc. Also, during installation if poorly installed, possibility of condensation occurs which results in water damage to other building elements.

Hence, it is important that the insulation materials are properly labelled, selected, installed and protected during and after installation. This ensures that the materials perform in an efficient manner, reduces heat and sound transfer and contributes to energy conservation. Restricting the use of hazardous substances also ensures that the impact on environment and human health is minimised.

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

IMPLEMENTATION

All insulation materials (fig. 701.01(1)) used in building should conform to the requirements of this regulation and must be certified by DM/DCL. Also, conformity certificates for the insulation materials should be renewed annually. Materials certified by DCL are available in Dubai Municipality's website/portal.

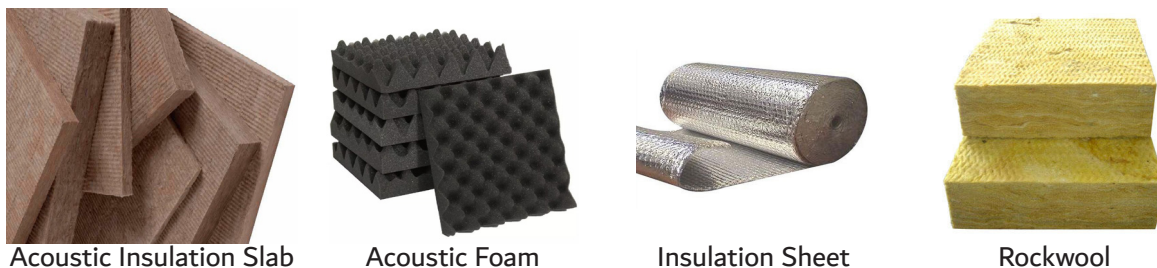


Fig 701.01(1): Types Of Insulation (Samples)

Project teams should ensure the insulation materials specified, is manufactured without the use of CFC. There are several substitutes available that are environmental friendly and in compliance with DM requirements.

Combustible insulation materials produce toxic fumes when burned. To regulate the fire toxicity of the insulation materials, Dubai Civil Defence (DCD) has set forth regulations, fire safety standards and test procedure for all applicable insulation materials. Project teams must ensure that insulation materials comply with DCD requirements and is approved by DCD, prior to installation.

Insulation materials must also comply with added formaldehyde and VOC limits set forth in this regulation. Project teams should review the DCL test certificates for the insulation materials, for formaldehyde and VOC levels and ensure compliant materials are used.

To ensure insulation materials are properly installed during construction stage, the following guidelines can be considered by the project teams:

- Exposure to moisture results in degradation of thermal properties of insulation materials. Hence, prior to installation, materials should be stored in dry, covered areas away from any potential source of moisture or dust exposure from general construction activity.