

CHAPTER 4 - HAZARDOUS MATERIALS

400

404.02 LOW EMITTING MATERIALS: ADHESIVES AND SEALANTS



INTENT

To minimise the amount of indoor air contaminants from adhesives and sealants that impacts the health, productivity and wellbeing of occupants.

REQUIREMENT

For all buildings, including new applications in existing buildings, all adhesives, adhesive bonding primers, adhesive primers, sealants and sealant primers used in the building should not exceed the allowed limits for Volatile Organic Compound (VOC) specified by Dubai Municipality. This must be accredited / certified from Dubai Central Laboratory or any other laboratory, approved by Dubai Municipality.

SIGNIFICANCE

Quality of the indoor environment has a significant influence on the well-being, productivity and quality of life of occupants. Many building products and materials include compounds that have an adverse impact on indoor air quality as well as contributing to outdoor pollution. The most prominent of these compounds are Volatile Organic Compounds (VOC).

Prolonged exposure to high concentrations of some VOCs has been linked to a wide range of chronic health problems such as asthma, chronic obstructive pulmonary disease and cancer. Short-term exposure to VOCs can also cause acute reactions such as eye, nose, and throat irritation. The harm caused by use of products with high levels of VOC affects the building occupants and those who install or apply these products during construction. Use of low VOC containing adhesives and sealants will improve the indoor air quality.

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 adhesives and sealants used in the building must comply with the maximum Volatile Organic Compound (VOC) limits indicated in Dubai Central Laboratory's specific rules for low-emitting materials (as shown in Table 404.02 (1)).

Adhesives and sealants manufacturers should demonstrate compliance by providing material specification data sheets and DCL test certificates that specify the VOC levels of these products.

The VOC limits are for adhesives and sealants, as supplied before addition of water.