International Standard

ISO 25188

Glass fibre — Determination of density

Fibre de verre — Détermination de la masse volumique

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Introduction

The density of glass fibres is an important parameter for determining the physical properties of glass fibres and for calculating the mechanical properties of glass fibre composites. Determination of the density of glass fibres affects the characterization of the strength and modulus of glass fibres and composites, the testing and calculation of the volume content of fibres in composites, and the structural design of composites.

Glass fibre manufacturers can measure the density of glass before it is made into fibre. In addition, glass fibre users can measure the density of glass fibre according to ISO 12154. However, since ISO 12154 gives a general method for measuring the skeleton density of a solid material samples and is not optimized for glass fibre including pre-treatment, a density measurement standard for glass fibre should be established.

The two test methods given in this document are applicable to the glass fibre powder, chopped fibre, yarn and roving.

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