

LATIMASS Controlled Density Thermoplastics



The specific weight of thermoplastic materials for injection moulding generally stands between 1 and 1.5 g/cm³, according to the reinforcement, filler type and to the polymeric matrix. However in some applicative fields such as:

- Sport and leisure time
- Automotive
- Medical
- Mechanics
- Prototyping
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it may be necessary to use products with different weights from these of typical thermoplastics, e.g. to produce heavy parts, made up of raw materials with a density close or higher than metals, or extremely light parts, obtained with density lower than 1 g/cm³.

In order to satisfy this need, LATI has created **LATIMASS**, a range of injection moulding products with a controlled density, varying between 0.76 and 9.5 g/cm³.

High Density LATIMASS

Different grades are produced by adding metallic or mineral heavy fillers to thermoplastic neat resins. In this way variable densities are obtainable up to a maximum of 9.5 g/cm³.

Despite of the peculiar formulation, these compounds can be moulded without problems and without special processing conditions. The choice of adequate thermoplastic resins allows complete cavity filling featuring also complicated geometry and thin walls. The parts will show, moreover, an excellent surface finish, good dimensional stability and interesting mechanical properties.

Thanks to the high filler density, **LATIMASS** products offer good efficiency in X-ray shielding, so that it is possible to substitute lead and heavy metals from shielding devices in medical appliances and industrial radiography.

Low Density LATIMASS

The use of expanding agents in the injection moulding technology is often difficult to manage and sometimes even not possible. Low density **LATIMASS** products are compounds filled with special hollow glass beads, suitable to obtain materials with a density lower than 1 g/cm³.

Extremely light, good surface finish, rigid and with a good dimensional stability: the most important advantages of LATI products with hollow beads assure interesting features for innovative lightweight applications.

Key benefits:

- Variable density between 0.76 and 9.5 g/cm³;
- Good surface finish;
- Dimensional stability;
- Easy and clean processing;
- Flexibility in design and engineering solutions;
- Easy overmoulding.

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