

Laminated shim stock

Laminated shim stock consists of individual foils bonded together to make panels. The basic dimensions of a panel are 600 mm x 1200 mm. The individual foils are 0.05 mm or 0.075 mm thick. They conform essentially to LN 29557 and AMS-DTL-22499.

These panels form the starting material used to manufacture peelable laminated shims (M-Tech[®]L).

Variants

The variants relate mainly to the material: aluminium Al99.5, aluminium wrought alloy AlMg3.0, stainless steel, mild steel, alloyed steel, brass.

The foils are 0.05 mm and 0.075 mm thick. Usually a laminated shim panel is laminated completely out of foil of one particular thickness (full lamination). The dimensions of a panel such as this are 600 mm x 1200 mm with an overall thickness of 0.4 mm to 3.2 mm. Customers should enquire should they wish to have products made to different dimensions. For special purposes, it's also possible to order panels composed of laminated and solid sheets. In this case, customers are required to order and purchase the whole panels before continuing with further productions. Laminated shim stock has been in common use in all branches of industry for many decades under the name Laminum – which is now M-Tech[®]L.

Delimitation

Laminated shim stock is usually fully laminated. Partial lamination with different foil thicknesses is also possible in special cases.

Manufacturing method

Laminating resins are used to produce the laminated sheets; these resins are bonded into panels under high temperatures and high pressure. After curing, the resin layers are only a few µ metres thick.

Handling

1. Peeling

Laminated shim stock can be easily peeled with a knife from the round edges caused by the stamping process (not from the sharp edges).

2. Inserting the product

When inserting the product, it must be ensured that the shim is not bent too much as this may result in delamination or a kink forming in the material.

3. Adjustment of the tolerance measurement

peeling reduces the height of the laminate by 0.05 mm or 0.075 mm (according to the thickness of the foil). The starting thickness is between 0.4 mm and 3.2 mm.

Note: foils peeled from M-Tech[®]L (Laminum) products are not reusable. The clearance compensation is produced via the laminated sheet-body.

Regarding the manufacture of the shims in general: the laminated shims can be stamped, milled, cut by water-jet or wire-cut EDM.