

SPECIAL PRODUCTS, FUTURE SOLUTIONS: SELF-LUBRICANT AND THERMAL CONDUCTIVITY

LATILUB

The family of **thermoplastics filled with aramidic fibres** completes the range of LATILUB products, thanks to the extraordinary resistance to abrasion which traditional auto-lubricants cannot guarantee.



Aramidic fibre is in fact much softer and stronger than fillers such as glass-fibre and carbon and is therefore **less likely to break** and abrade the surface that it comes into contact with.

Making it ideal for parts in relative motion against easily wearable materials whether they are polymers or metals.

The compounds obtained offer **excellent auto-lubricating properties, a very low tendency to wear out, reduced**

attrition coefficient and a high PV limit. The absence of deposits on the mould means that the transformation is simpler, quicker and cheaper than that of products containing PTFE.

These formulations, due to the high fluidity of the melted material, are suitable for manufactured articles in which the high viscosity of carbon filled material makes it difficult to fill the thinnest cavities.

Thanks to their **non-abrasive nature** the aramidic fibres also reduce to a minimum the wear and tear of plasticization screws, nozzles and moulds.

Their morphology also means that the mechanical properties of the manufactured piece will not be affected, as on the contrary may occur when using other non-fibrous additives, raising the value of the continuous operating temperature of the base resin.

The use of these products where **quick and safe solutions are needed to solve the problem of auto-lubrication**, also for the coupling of plastic to plastic, for high or low relative speed use, are favoured by the fact that they have **good dimensional stability, a good appearance, are lighter than metal and make less noise in movement.**

LATICONTHER

The **LATICONTHER** family of compounds means that manufacturing thermally conductive plastic articles has become a reality and no longer just a possibility.



The range of products proposed by LATI today present an optimised efficiency in heat transfer, obtaining values of thermal conductivity of up to 20 times higher than ordinary technical thermoplastics.

The use of these materials allows the elimination of the heat produced, for example, from electronic and electric devices, favouring the heat transfer as much as by conduction as through the priming of natural convection phenomena. In this way effective cooling systems can be made for all sectors which currently use thermoplastic and thermosetting polymers, effectively insulating, or metals, whose high conductivity cannot really be made use of due to the lack of conditions for efficient heat exchange.

The advantages offered by these materials are also connected, apart from the high thermal conductivity, to the limited weight, the chemical inertia and a linear thermal dilatation comparable to that of metals.

With **LATICONTHER** products manufacturing complicated geometries or articles consisting of numerous assembled parts can be integrated into a single operation of injection stamping.

They are available both in the electrically insulated and conductive version, originating from typical **LATI polymers: PP, PA6, 66, 12, PPS.**

Thanks to the isotropy of the thermal characteristics in general, from the conductivity to the linear dilatation, **LATICONTHER** represent a valid solution to:

- encapsulate, overprint coils, winding supports and other applications in the electrical and electronic sector;
- construction of dissipators for electrical motors, circuits, processors, lights;
- manufacture of heat exchangers, especially in the presence of corrosive environments.

LATICONTHER products are able to prove their thermal characteristics on the same level as the best specific products which are available in the market today.