Dear Readers,

The use of electrical installation and distribution products made from thermoplastic materials is normal in many parts of the world.

Such products are light, easy to work with, non-corrosive, affordable and most of all safe! But watch out; not all of the products used in electrical installation meet demanding safety standards to the same degree.

Hensel, as one of the market leaders in offering such installation / distribution products has always placed great importance on having such products manufactured to be not only flame retardant but also self-extinguishing. It means more work for us in manufacturing but more safety in installation! In the unlikely event that a fire were to actually break out in or near a Hensel plastic product, the high-quality materials will make sure that the fire does not spread but the plastic with its self-extinguishing characteristics will make sure that any fire that ingites is extinguished before it can cause any real damage.

Every day at Hensel we work at making better and safer plastic technology and applications for our products. We are happy when our customers in the field discover the many practical advantages along with the very high level of safety that our products offer.

We look forward to working with you in the future!

F.G. Hensel,
Managing Director
Gustav Hensel GmbH & Co. KG

Flame retardant is good, self-extinguishing is better!

Fire safety requirements for electrical installation material for faults in electrical products

It is important for building safety that electrical equipment does not present any dangers to its surroundings.

This safety target is a requirement set down in in the law governing technical work equipment and consumer products (Equipment and Product Safety Act – GPSG).

Standards set minimum requirements regarding this safety target.

What do the IEC standards say about this area of electrical installation?
What do the IEC standards say about resistance to fire concerning electrical installation material?

The subject of fire protection for electrical equipment is dealt with under the term fire safety requirements. These requirements relate to faults in electrical equipment and not an external fire.

Examples of faults in electrical equipment:

- Insulation faults from loose clamping units
- Short circuits in enclosures from internal dirt or moisture

Minimum requirements of the standards
Verification of Flame Retardant at 650°C

Verification by glow wire test:
In this test a glow wire is pressed on a product for 30 seconds to determine if the product catches fire. After 30 seconds the glow wire is removed. Should the material catch fire, the flame needs to be extinguished within 30 seconds.

The material will then be classified as flame retardant for the testing temperature (650°C)

Flame retardant qualities do not prevent flame formation on the equipment!
Whether or not a flame is formed depends on the material and the energy added (in this case the temperature of the glow wire).

To prevent a fire, the flames need to be extinguished on their own!
This characteristic is called: Self-extinguishing!

Self-extinguishing is better!
Only “self-extinguishing” material provides added safety!
Only “self-extinguishing” material provides added safety regarding fire protection!

The proof of self-extinguishing characteristics shall be carried out using a glow wire test at a temperature of 750°C.

The glow wire test at 750°C should prove,

► ... that a flame will extinguish itself within 30 seconds of the energy source being switched off, i.e. it does not continue burning or catch fire.

Faults in the electrical equipment are generally prevented through protective equipment such as fuses or miniature circuit breakers.

► ... that molten burning parts cannot cause a highly flammable layer below to catch fire.

All Hensel products made from thermoplastic are flame retardant and self-extinguishing and fulfil the glow wire tests at least 750°C or even 960°C!
Play it safe:
Use only products with self-extinguishing characteristics!

All Hensel products made from thermoplastic are flame retardant and self-extinguishing!

More detailed information on this theme proceed to download at www.hensel.in!

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Delivery in South East Asia via Hensel authorized distributor network in all ASEAN countries.