

TECHNICAL INFORMATION

CTX 65/5

Description: This product is a flame retardant silane grafted compound for cable applications, **Cross-linkable** by heat and moisture by previous addition of a suitable catalyst masterbatch (SIOPLAS method).

Application: Sheathing of electrical cables with high flexibility, resistance to harsh weather conditions, oils and hydrocarbons.

Standard: EN 50363-2-1 type EM2, EN 50363-2-2 type EM5.

Technical characteristics after the crosslinking process:

| Property | Test method | Unit | Tolerance | Value |
|--------------------------|-------------|--------------------|-----------|-------|
| Density (natural colour) | ISO 1183 | gr/cm ³ | ± 0,02 | 1.30 |
| Hardness Shore "A" 15" | ISO 868 | point | ± 2 | 63 |
| Tensile strength | ISO 527 | N/mm ² | ≥ | 14 |
| Elongation at break | ISO 527 | % | ≥ | 710 |
| Limited Oxygen Index | ISO 4859 | % O ₂ | ± 1 | 28 |
| Cold flex | ISO 458 | °C | ± 2 | - 60 |

The typical values reported in the table have been obtained from measurements made on extruded samples or pressed plates

Processing

The grafted silane compound is dry blended in a separate step with a crosslinking catalyst master batch (**4-5% of ALOCAT 2**), in a traditional single screw extrusion process.

A temperature profile for the reactive extrusion is given below, are however indicative, and may depend on the equipment design used.

| Zone 1 | Zone 2 | Zone 3 | Zone 4 | Collar | Head | Die |
|--------|--------|--------|--------|--------|------|-----|
| 135 | 135 | 140 | 145 | 150 | 155 | 155 |

The extrudate is most of the time cooled down at ambient conditions or into a water bath, which provides the moisture necessary for crosslinking. The reaction is fast but diffusion of moisture in the material is a limiting factor. For this reason, hot water bath or low pressure steam autoclave can be used to speed up crosslinking. Generally speaking curing time is insulation thickness dependant, for example a 1mm wall section may take 4-6 hours in extreme moisture conditions. In case of self curing, time depends on the specific ambient temperature and humidity.

Storage : The grafted compound must be stored at ambient temperature (not exceeding 30°C) in moisture resistant bags, in order to avoid exposure to sunlight and water absorption. The crosslinkable product should be used within three months from the production date and within few hours if the bags are opened. After this deadline it's necessary to dry the material.

Packaging : is available in 25 Kg or bigger aluminum bags.

For further information please contact info@fainplast.com

Edition 09/2014

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