

AKROMID® FR

with halogen-free flame protection

RELIABLE • HALOGEN-FREE • SPECIFIED • RELIABLE • HALOGEN-FREE • SPECIFIED

The company AKRO-PLASTIC GmbH has been operating as manufacturer of high grade engineering compounds for more than 20 years, primarily in the sector polyamides. With completion of the AKROMID® FR series (Flame Retardant), AKRO-PLASTIC is able to deal with its Polyamide 6 and 6.6 with nearly all requirements in the area of electro- and electronic applications. According to the company's philosophy of AKRO-PLASTIC, self-evidently all products of the AKROMID® FR series are free of halogens, do not contain one of the prohibited bromine types and can be colored into almost every color due to the non-available red phosphorus.

All materials correspond to the RoHS Directive 2002/95/EG for limitation of use of hazardous substances in electro- and electronic devices and are authorized according to the REACH Regulation EG 1907/2006. Due to the fact, that AKROMID® FR types are free of halogens, the adherence to the regulation WEEE 2002/96/EG is simplified by the OEM. That is the fact, because a separate collection of the raw-material must not be considered here.

A comparison to Polyamide, not containing flame-protection definitely shows comparable dates with regard to modulus of rigidity as well as tensile stress at break. With regard to those features, AKROMID® FR outmatches types of polyamide in similar application areas including brominated- and what is more anorganic flame-protection systems not requiring an extremely high filling level. Furthermore, data representing toughness like elongation at break and impact strength substantiate the significant predominance. A bigger part of unreinforced and glass fiber reinforced products fulfil the glowing wire test according IEC 60695-2-13 with a Glow Wire Ignition Temperature of 775°C, required in the standard DIN IEC 60335-1 for safety of electric appliances for domestic purposes and similar scopes.

The comparative tracking index (CTI), necessary for downsizing of constructive spaces, lies with all products always at the highest level between 500 and 600, corresponding to a PLC classification of 1 to 0.

A further requirement of globally acting users is the avoidance of deposit of emissions on conducting contacts among special climatical conditions. This undesired migrational effect is not available at any version due to the applied flame retardant. In this way, parts of AKROMID® FR are even applicable in subtropical areas.

Checking of flame protection class according to UL 94-5V
Material: AKROMID A3 K1 FR



Typical application areas are:

- Housing parts for ground fault circuit interrupters, sliding valves and automatic circuit breakers
- Switchboard parts
- Circuit breakers and circuit breaker elements
- Plugs, plug applications and connection plug boards

The product portfolio currently disposes of the following variants:

- Unreinforced products in PA 6 and PA 6.6 composition-dependantly attain the flammability classification UL 94 V-0 @ 0,4 mm
- With glass fiber reinforcement from 10 to 30 %, UL 94 V-0 @ 0,8 mm are attained in PA 6 and PA 6.6
- The cost-optimized mineral filled mixtures fulfil the required UL 94 V-2 @ 0,8 mm

AKRO-PLASTIC – Competence in Plastic Compounds

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