

FACT SHEET

ICT-FPFIM-9012

formerly
ICT-FOR-GK



ICT-NOM-410 is a synthetic aromatic polyamide polymer (aramid), which is characterized by a particularly stable molecular structure. This results in the excellent dielectric, thermal, chemical and mechanical properties of NOMEX® and opens up a wide range of applications for NOMEX® products. ICT-NOM-410 is produced by the manufacturer DUPONT under the name NOMEX®.

9 FOILS, SHEETS

DESCRIPTION

For more than four decades, NOMEX® papers and pressboards from the manufacturer DUPONT have been successfully used as surface insulating materials for transformers, motors, generators and many other electrical devices, proving their overload capacity and high reliability even under extreme operating conditions.

ICT-NOM-410 is a synthetic aromatic polyamide polymer (aramid), which is characterized by a particularly stable molecular structure. This results in the excellent dielectric, thermal, chemical and mechanical properties of products for a wide range of applications.

ICT-NOM-410 paper is manufactured from two forms of the aramid polymer, the fibrils (as binding particles) and the flakes in a papermaking process (type 411). In a second step, the NOMEX® papers (types 410, 414, 356, 818) are highly compacted and cross-linked in a high-temperature calendaring process.

TYPICAL PROPERTIES

Density	1 g/cm ³
Oxygen Index	29 %
Water Absorption (change in weight)	0.06 %
Heat Deflection Temperature (under load)	from 121 to 250 °C
Surface Energy	≥ 50 Dynes/cm
Comparative Tracking Index	600 V
Volume Resistance	3,97 × 10 ¹⁵ Ω/cm
Dielectric constant	1.9
Dissipation Factor	0.0023
Core ID	152 mm
Core OD	457 mm
Roll Width	610 mm

FEATURES

- › Thermal stability: UL-approved for use in electrical machines at continuous operating temperatures of up to 220 °C
- › Properties are virtually unchanged in continuous operation (UL 546 B)
- › Short-term (over hours) operation is also possible at significantly higher temperatures
- › Flame retardant, self-extinguishing no melting, LOI value (Limited Oxygen Index) of over 20.8 at 220 °C (the critical value for combustion in normal air) does not support the combustion process (UL 94 V-0)
- › Very high mechanical stability (tensile strength, stiffness, tear and tear propagation resistance, bending stability)
- › Inherent dielectric strength: short-term loads of 18 to 40 kV/mm, possible without further treatment with lacquers or resins.
- › Exceptional chemical resistance to acids and alkalis
- › Compatible with all types of paints, adhesives, transformer fluids, lubricating oils and coolants.
- › Due to its unique polymer structure, NOMEX® is used in a variety of low temperature applications.
- › Insensitive to moisture at equilibrium at 95% relative humidity
- › Stress resistance in dry condition, many mechanical properties improve even radiation resistance

DELIVERY FORMS / APPLICATIONS

- als Zuschnitt, Stanzteil oder Laserschneidteil
 - wenn erforderlich auch selbstklebend ausgestattet
 - In Zuschnitten und Formen nach Kundenspezifikation
 - In Form von Matten / SHEET / Rolle / Lose
- Typ 410 Kalandrierter hoch verdichteter Standardtyp**
- NOMEX® Typ 410 Lieferbare Stärken:** von 0,05 mm, 0,08 mm, **0,13 mm**, 0,18 mm, **0,25 mm**, 0,30 mm, 0,38 mm, **0,51 mm**, 0,61 mm, **0,76 mm**
- Andere NOMEX® Typen wie:**
- Typ 414** Ähnlich Typ 410, flexibler, dadurch besser formbar mit offenerer Oberfläche und besserer Saugfähigkeit im Vergleich zu Typ 410
- **Lieferbare Stärken:** von 0,18 mm, 0,25 mm, 0,30 mm, 0,38 mm
- Typ 818 (418)** Kalandrierter Sondertyp mit 50 % Glimmerplättchen, dadurch höhere Spannungs- und Teilentladungsfestigkeit
- **Lieferbare Stärken:** von 0,08 mm, 0,13 mm, 0,20 mm, 0,25 mm
- Auf Anfrage ebenfalls lieferbar**

ICT4TIM Partners



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