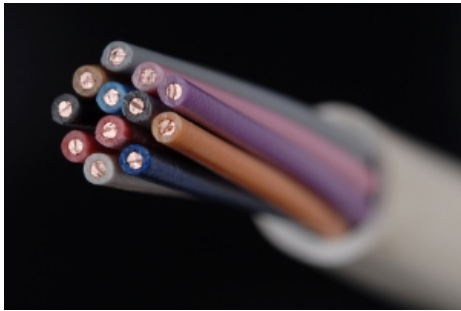


Electronics and electric cables – supporting cutting-edge industries



Already extensively present in the cables market, the Arkema group is mobilizing its innovation resources to provide solutions for the electronics market. This sector is now facing the technological limits of silicon-based components.



A multi-product offer for electric cables

Today cable manufacturers are faced with **new safety requirements** (fire resistance), solidity (stability) and longevity (mechanical resistance). The products of the Arkema group provide a suitable response, and are used in the manufacturing of low, medium, high and very high voltage cables. These products are:

- functional polyolefines: **Evatane**[®], **Lotryl**[®], **Orevac**[®] or **Lotader**[®]. Combined with **Luperox**[®] organic peroxides, they provide solutions in compliance with the new standards
- polyvinylidene fluorides (PVDF): **Kynar**[®] and **Kynar Flex**[®]. Due to their exceptional chemical and mechanical resistance, they are particularly suited to meeting stringent requirements such as those for security cables
- polyamide resins: **Rilsan**[®]. As one of the rare materials able to resist against termites, this product is very appreciated by professionals working with subterranean cables.

Moving to silicon-free organic electronics

The Arkema group has committed itself to the electronics of the future through two major research programs conducted in collaboration with the **CEA** (French Alternative Energies and Atomic Energy Commission):



- As a result of the continuing miniaturization of **silicon chips**, microelectronics based on **optical lithography** – the engraving technology for microprocessors – is facing the physical limits of silicon as a material. To move beyond these constraints related to the world of the infinitely small, the Arkema group is developing technology for **polymer self-assembled (or nanostructured) lithography**. This highly promising alternative requires **low production costs** and is easily integrated into existing manufacturing processes of microprocessors. [Accueil > Innovation > Réponses aux tendances globales > Electronique].
- Thanks to its wide range of technical polymers (fluorinated, piezoelectric, thermoplastic and nanostructured), the Arkema group is dedicating significant resources to **large area printed electronics** (flexible screens, smart packaging and textiles, photovoltaic panels). The aims of this initiative are to:
 - extend system lifespans
 - optimize production costs
 - integrate several functions on the same support

The use of these organic materials, rather than silicon, makes it possible to design a whole new field of printable, transparent and flexible components.

[More about electronic trends](#)

Market outlets for high performance materials

A completely new market has opened up in electronics where **Rilsan**[®] polyamides with a high level of performance and rigidity can favorably replace metal parts. **Sartomer**, a subsidiary of the Arkema group, also offers a complete range of **Sarbox**[®] multifunctional acid resins used for adhesion to metal or plastic in high performance electronic applications.