

Akulon®

nexeo
plastics

Envalior
Imagine the Future



PROVIDING A BROAD PORTFOLIO WITH GLOBAL GRADES WITH GLOBAL SPECIFICATIONS

From superior impact strength and high heat resistance to excellent flame retardancy, Akulon® delivers properties that help you produce greener, lighter, and smarter products.

FOR MOLDED PARTS, AKULON® OFFERS AN EXCELLENT BALANCE OF EASY DESIGN AND PROCESSING WITH OUTSTANDING MECHANICAL PROPERTIES OVER A WIDE TEMPERATURE RANGE AND IN DIVERSE OPERATING ENVIRONMENTS.

CHARACTERISTICS

Thermal:

Akulon® is ideal for injection molding thanks to its unique combination of short- and long-term low and high temperature properties under various chemical conditions. Akulon® has a continuous-use temperature of up to 365°F (185°C). In fact, polyamide 6 delivers better long-term performance at high temperatures than polyamide 66 and should be the preferred material for any application running for extended periods above 301°F (150°C).

Mechanical:

Akulon® has a full portfolio that provides excellent long- and short-term mechanical properties. For high mechanical strength, Akulon® has 50% and 60% glass filled grades in the portfolio. These are suitable for metal replacement where high strength and fatigue are key.

Electrical:

Akulon® has excellent electrical properties and conforms to all global standards.

Flame retardant:

The Akulon® product line provides a full range of flame-retardant grades. The Akulon® portfolio contains unfilled grades, as well as glass or mineral filled grades, including a halogen free flame-retardant portfolio.

Mobility

Akulon® is a thermoplastic with high-heat resistance and high-speed tensile properties. This material is stiff and tough, making it compatible for applications with expansion rubber or foam is applied to molded parts. It can yield faster molding than standard PA6, which makes it ideal for applications requiring thinner wall designs.

Applications include:

- Air inlet manifolds (engine air intake)
- Hot charged air ducts (engine air intake)
- Structural reinforcements (body structural parts)
- Engine covers
- Airbag containers
- Hydrogen pressure vessel (engine fuel system)
- Change air cooler caps (engine cooling / thermal management)



Consumer Goods

Akulon® is a lighter weight material compared to metals, which makes it easier to use for integration and assembly. Additionally, it has a better welding strength and surface appearance than PA66. With its ability to perform across a wide temperature range and in diverse conditions, Akulon is a reliable solution for power tool housings, outdoor power equipment and outdoor sports gear.

Applications include:

- Ski bindings
- Power tool housings
- Chainsaw housings
- Power equipment covers



Electrical

Akulon® is a reliable solution for electrical applications with excellent short-circuit properties, including residual dielectric strength and thermo-mechanical endurance. This material is impact resistance, performs at low & high temperatures, and offers excellent CTI and arc resistance values (UL94 V2 at 0.75 mm certification). Most grades are available with halogen-free flame retardancy.

Applications include:

- EV charging connectors
- Electrical connectors
- Miniature circuit breakers
- Residual current device (power distribution low voltage switchgear)
- Contactors (power distribution)



[Learn more at nexeoplastics.com/envalior/akulon](https://nexeoplastics.com/envalior/akulon) or contact us to request a free sample.

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