Application solutions

Envalior
Imagine the Future

Front End Modules

Automotive / Body / Structural Parts

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Benefits

- 20–30% overall weight reduction vs. metal alternatives
- Higher temperature resistance and creep performance vs. PP
- Superior surface appearance compared to PA66
- Thin–wall designs and complex geometries via light–flowing grades
- Improved integration of structural and mounting functions
- Robust and sustainable hybrid solutions (plastic/metal, hollow profiles)

Details

Innovative front–end module (FEM) designs improve vehicle safety and performance while reducing cost and weight. Envalior's Akulon® and Durethan® PA6 materials outperform polypropylene and PA66 in thermal resistance, creep strength, and aesthetics. The use of injection molding with optional metal inserts or composite reinforcements enables thinner walls, more freedom in shape, and enhanced structural integrity. Envalior also supports hybrid FEM designs with overmolded metal inserts and hollow profiles, pushing the performance envelope in the most demanding applications.

Products

Akulon® Ultraflow K–FHG12
PA6–GF60

Durethan® BKV60XF
PA6–GF60

Durethan® DPBKV60H2.0EF
PA6–GF60

Durethan® ECOBKV60H2.0EF
PA6–GF60

UDea™ Akulon® K20HG60
PA6–GF60