



YOUR METAL-TO-PLASTIC CHOICE

Our technically accomplished team will help you slash the weight and cost of your new or existing application.

BENEFITS OF CHOOSING PLASTIC OVER METAL:

- Cost reduction
- Weight reduction
- Design freedom
- Secondary operation elimination



Stanyl® nylon 4/6

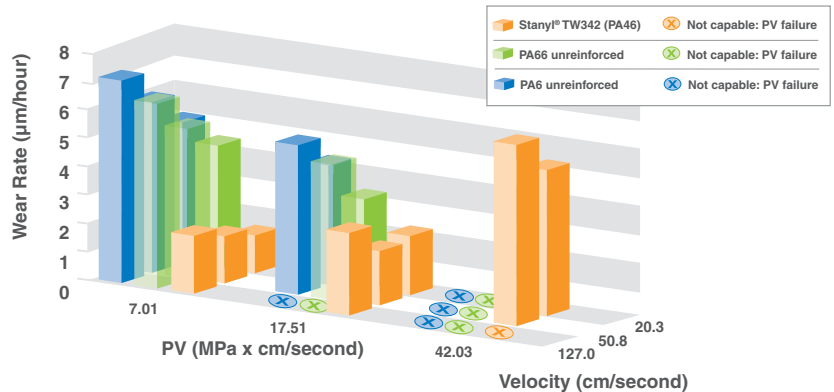
KEY ATTRIBUTES:

- Chemical resistance
- High HDT
- Lubricity

STRENGTHS:

- Flowability
- Hot-water moldable
- Outstanding wear and friction performance

The chart below demonstrates the superior wear performance of Stanyl® polyamide 4/6, which is particularly attractive at high speeds at which other nylons fail.



Stanyl® TW200F8

(40 percent glass-fiber-reinforced PA46)

Why we recommend Stanyl® TW200F8:

- High stiffness at high temperatures
- Low wear
- Weight and noise reduction

APPLICATION REQUIREMENTS:

- Diesel engines
- High stiffness at high temperatures
- High toughness
- Good oil resistance at high temperatures
- Low wear, good fatigue
- Safety, durability
- Weight and noise reduction

COMPETITION:

- Metal
- PA66



ForTii™ Nylon 4T® nylon 4/6

KEY ATTRIBUTES:

- Dielectric properties
- Dimensional stability — CLTE
- Very high HDT

STRENGTHS:

- Blister resistance
- Chemical and oil resistance
- Isotropic CLTE

Why we recommend ForTii™ Nylon 4T®:

- Components for reflow soldering
- Low moisture uptake
- Weight reduction

APPLICATION REQUIREMENTS:

- Better knitline strength than LCP
- Blister resistance
- Dimensional stability — low warpage and low coefficient of linear thermal expansion (CLTE) below and above T_g.
- Good resistance to salts that attack PA6 and PA66
- High heat capability (581°F DTUL)

COMPETITION:

- LCP
- PEI
- PPA
- PPS



ASAHI KASEI PLASTICS

Advanced Material Solutions



Leona® partially aromatic nylon 6/6

KEY ATTRIBUTES:

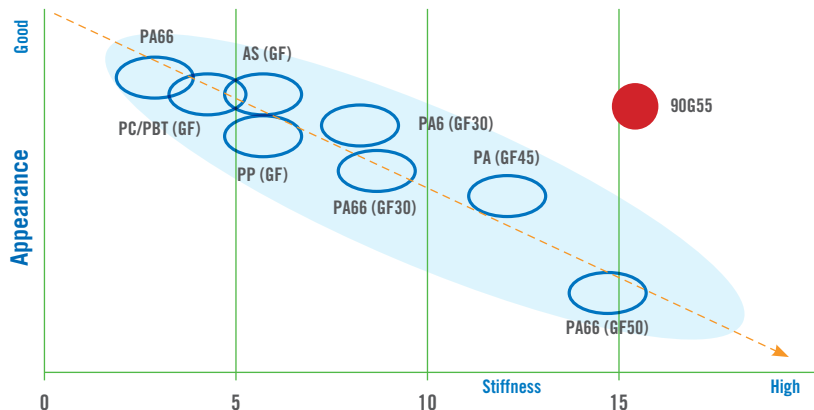
- Surface appearance
- Weatherability

STRENGTHS:

- High stiffness
- Paintability

Stiffness and Appearance

Leona® 90G: The resin with both high stiffness and excellent appearance



Industry leaders call on Chase Plastics for engineered resins to replace metal without sacrificing performance or quality.

Leona® 90G50 partially aromatic nylon 6/6

(50 percent glass-fiber-reinforced)

Why we recommend Leona® 90G50:

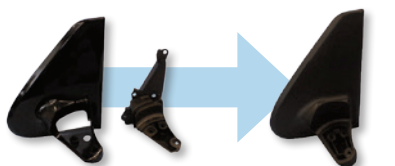
- Cost savings
- Parts integration
- Strength
- Surface appearance
- Weight reduction

APPLICATION REQUIREMENTS:

- Class-A surface finish
- Colorability
- High toughness
- Stiffness throughout a wide range of temperatures
- Weatherability

COMPETITION:

- Metal die-cast
- PA6
- PA66



Painted cover of ABS and inside bracket of Zamak

Unpainted one-piece stay of Leona® 90G60 B3374



Painted ABS and metal die cast

Unpainted one-piece stay and housing of Leona® 90G60 B3374



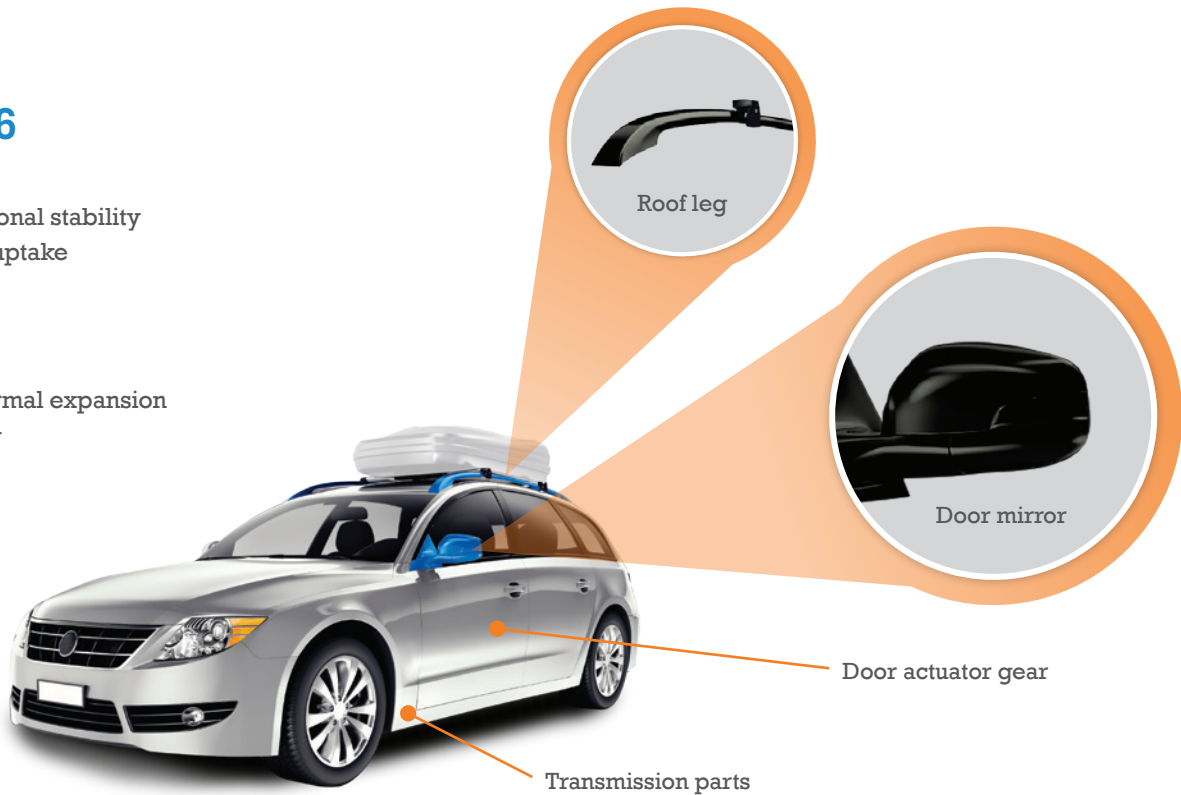
Reny® MXD6

KEY ATTRIBUTES:

- Good dimensional stability
- Low moisture uptake
- Surface finish

STRENGTHS:

- Paintability
- Super-low thermal expansion
- Weatherability



Why we recommend Reny® MXD6:

- Low mold shrinkage
- Low warpage

APPLICATION REQUIREMENTS:

- Good strength and stiffness retention at higher temperatures and wetter environments
- Highly resistant to oils and organic solvents and fuels
- Less moisture uptake than PA6 and PA66; less growth with moisture and better dimensional stability, especially in high-humidity environments
- Very good surface capability with high filler loadings — resin-rich surface

COMPETITION:

- Die-cast metals
- PA6
- PA66



Ryton® PPS

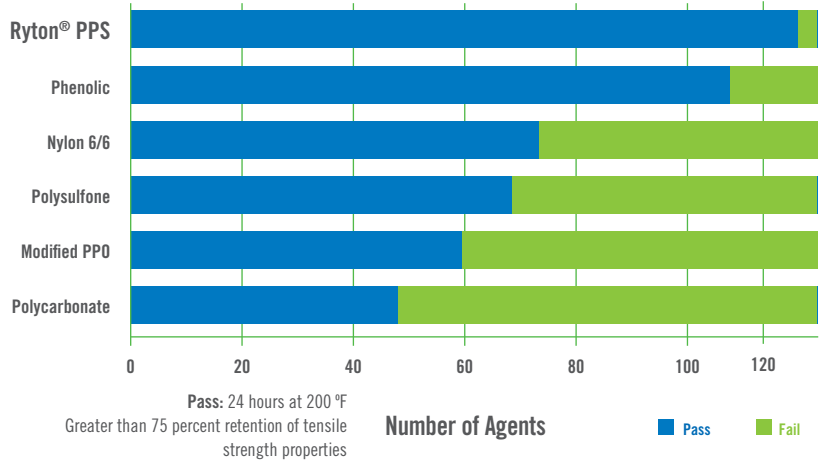
KEY ATTRIBUTES:

- Chemical resistance
- Dimensional stability
- High HDT

STRENGTHS:

- Precision molding
- Temperature resistance

Chemical Resistance of Plastics



Ryton® R4-02XT

(40 percent glass-fiber-reinforced improved ductility PPS)

Why we recommend Ryton® R4-02XT:

- Chemical resistance
- Thermal stability

APPLICATION REQUIREMENTS:

- High stiffness at elevated temperatures
- Low dimensional change under varied conditions
- Resistance to several chemicals
- Structural integrity

COMPETITION:

- Aluminum
- Die-cast metal



Plastics

Solvay Specialty Polymers Omnix® 4050 HPPA

KEY ATTRIBUTES:

- Crystallizes sooner than other aromatic nylons for faster cycle times
- Exceptional surface appearance
- High-performance semi-aromatic nylon base
- Low and slow moisture uptake provides excellent dimensional stability

STRENGTHS:

- High stiffness
- Hot-water and hot-oil moldable
- Low flash

Why we recommend Omnix® 4050 HPPA:

- Excellent creep resistance
- Good impact

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