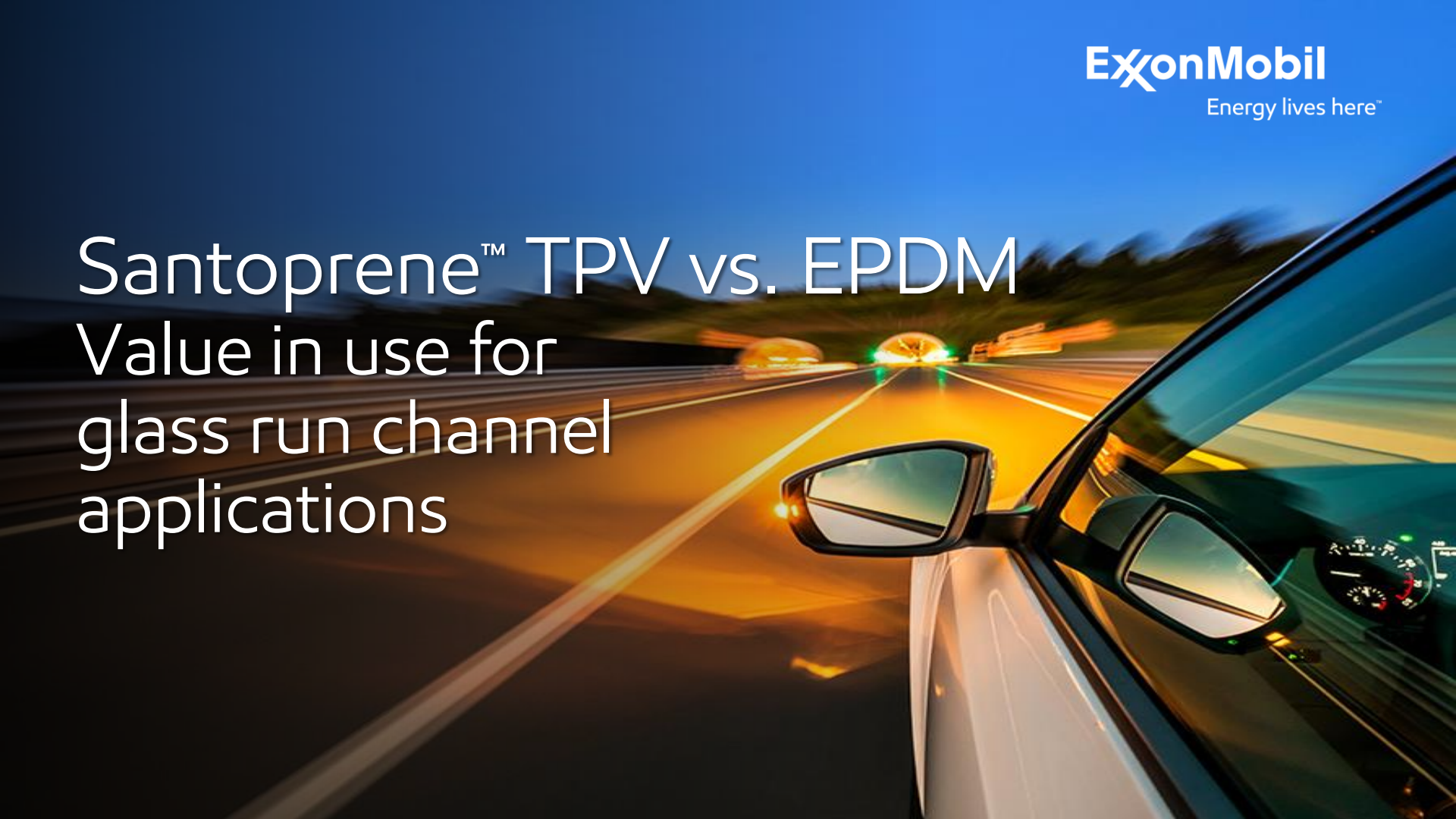


Santoprene™ TPV vs. EPDM

Value in use for glass run channel applications



Value in use of Santoprene™ TPV vs. EPDM

~70%

Investment
reduction

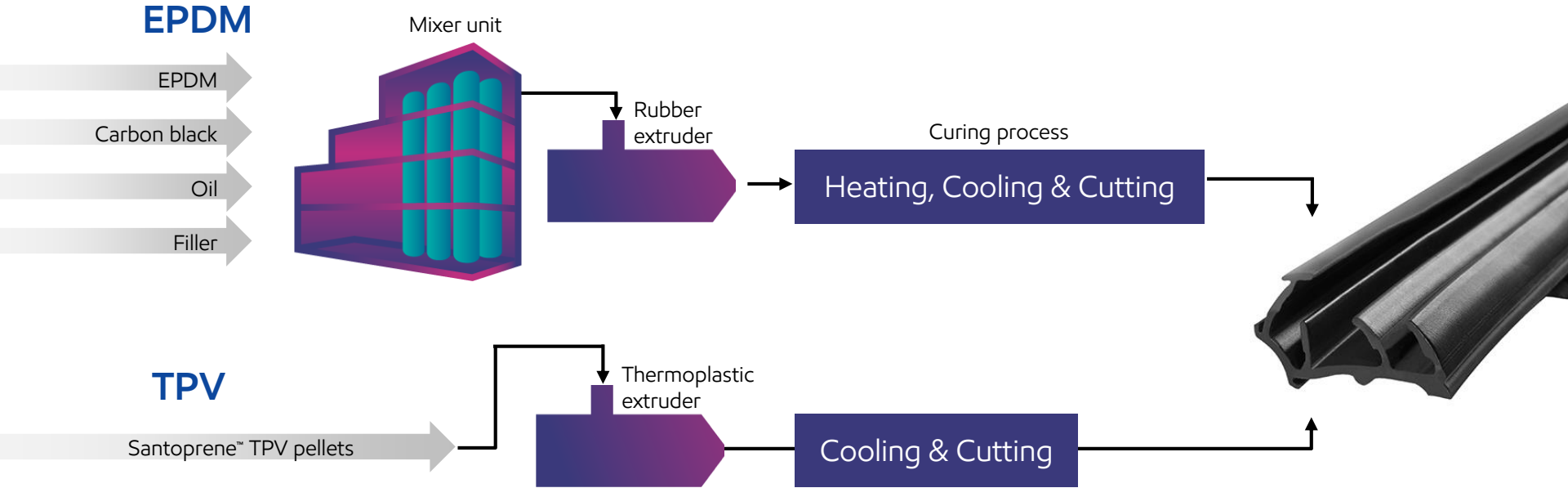
~70%

Space
reduction

~50%

Energy cost
reduction

TPV requires a reduced capital investment

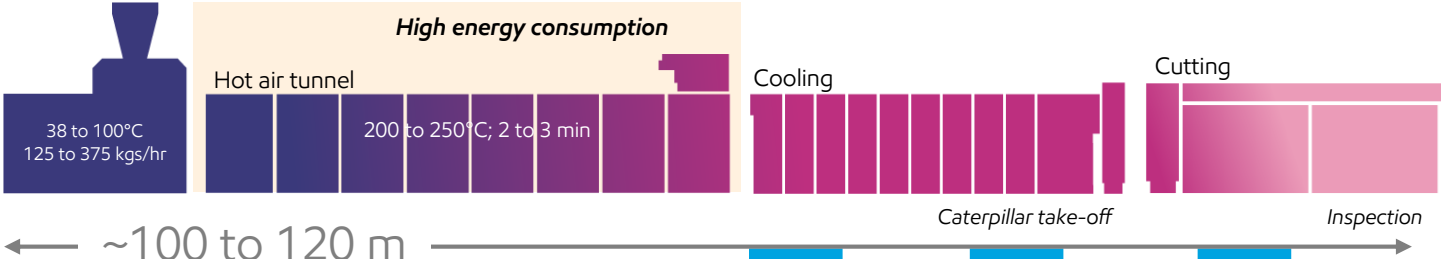


	TPV line	vs.	EPDM line
Investment:	1	X	~3 (excl. mixer)

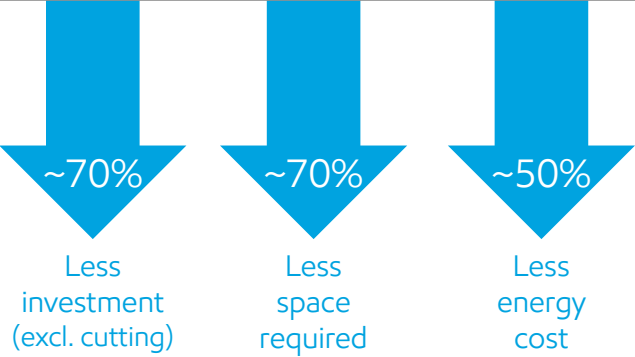
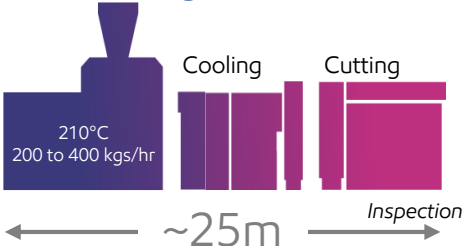
Source: ExxonMobil assessment.

TPV's smaller footprint reduces capital and energy costs

EPDM extrusion length



TPV extrusion length



Source: ExxonMobil assessment based on GRC roof profile

Global quality and
supply security

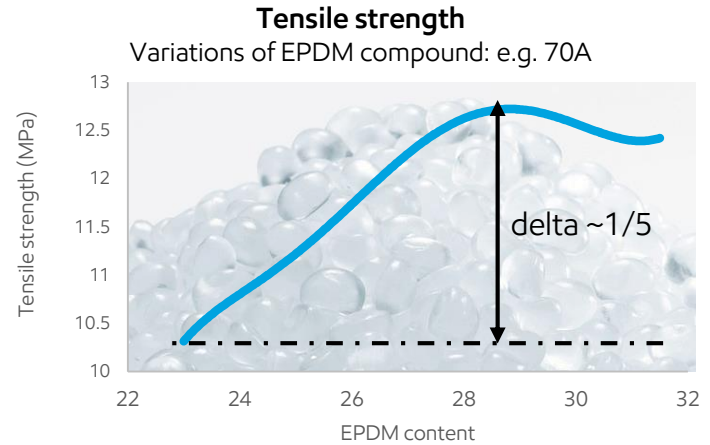
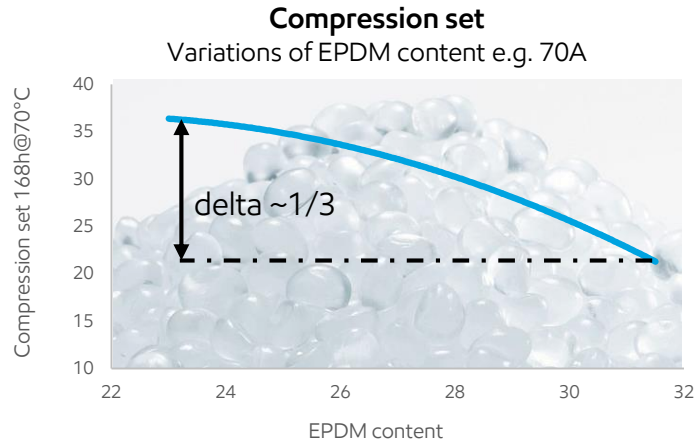
High quality and supply security support global OEM growth

	Santoprene™ TPV	EPDM comp.
	PP + EPDM fully cured	Compound
Raw material production	Continuous	Batch process
QUALITY		
Quality system	High (Global specifications)	Less (Compounder dependent)
Production quality standard	Global, highly consistent	Compounder dependent
SUPPLY- RAW MATERIAL		
Supply security	Global supply	No information
Raw material availability	Back integrated	Not back integrated
Global storage (raw material)	Long shelf time	Short shelf time

Source: ExxonMobil assessment.
*Indicative directions

ExxonMobil
Chemical
Santoprene

EPDM compound performance & quality depend on formulation



At same hardness e.g. 70 Shore A:

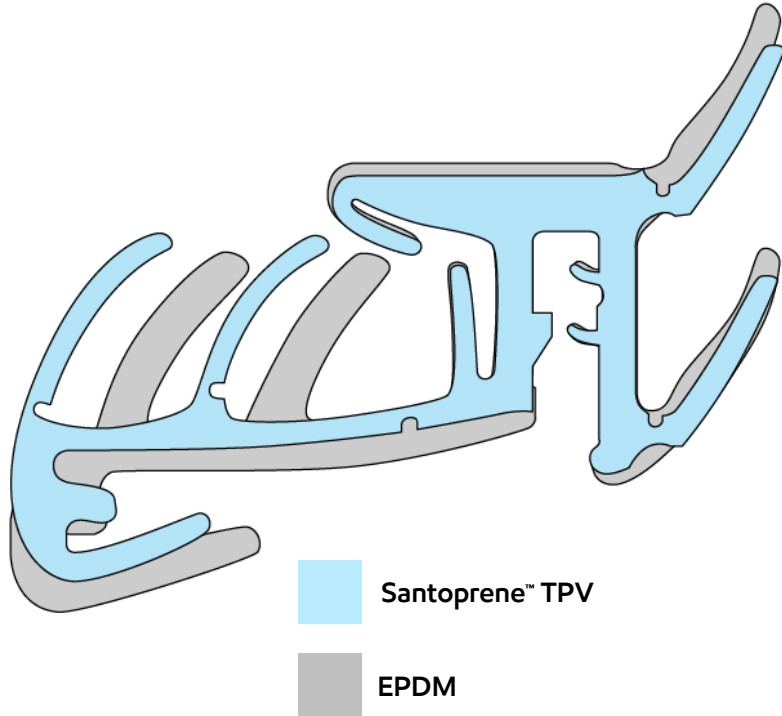
- Many possible formulation result in compound quality variations
 - Sealing and mechanical properties
- Impact to formulation costs

Source: ExxonMobil. Graphs for illustration purposes.

Santoprene™ TPV : Consistent global quality

Cost savings through
design optimization

Design optimization with TPV

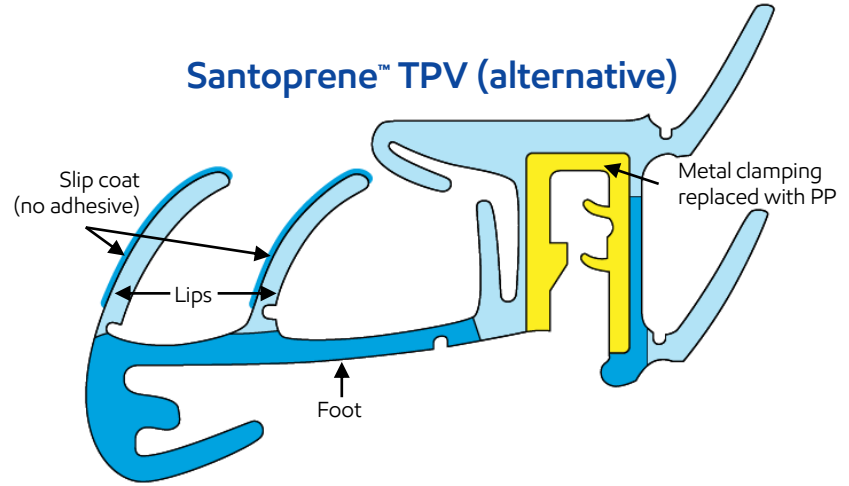
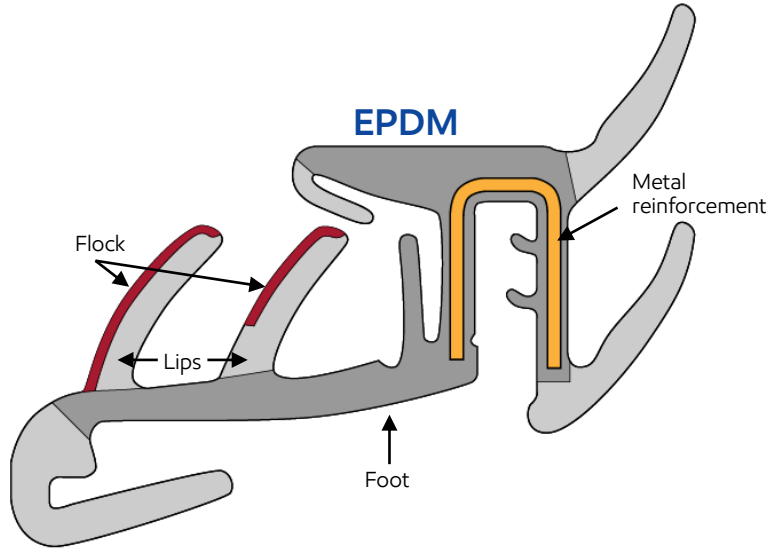


Santoprene™ TPV vs. EPDM:

- Up to 35% weight reduction
- Thinner wall thickness & density
- Same functionality maintained
 - CLD and strain level

Reduced weight

Design optimization with TPV



Optimized materials use
Reduced cost, investment

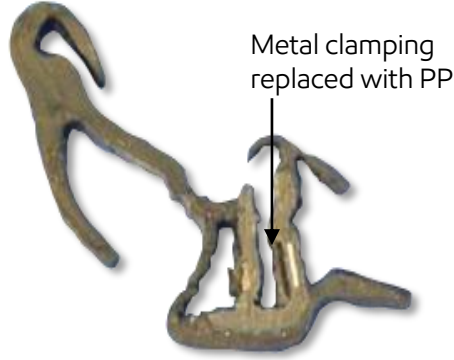
Source: ExxonMobil assessment.
*Indicative directions

Weight reduction with TPV

Header profile



EPDM
part:
750g



Santoprene™
TPV part:
350g

~55%*

weight reduction
through design optimization
vs. original EPDM design

Source: ExxonMobil assessment.
*Based on Skoda Fabia GRC case

Better aesthetics with system integration

Glass encapsulation integration with belt line seal

- Low weight
- Proven sealing performance
- Color / gloss harmonization
- Easy assembly



Source: ExxonMobil assessment.
*Based on Skoda Fabia GRC case



Santoprene™ TPV: Proven performance in glass run channels

Sustainable choice vs. EPDM

- ~ 70% lower investment
- ~ 70% less production space
- ~ 50% less energy
- ~ 50% lower weight
- Opportunity for Recycling

Superior aesthetics with system integration



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