

All Plastic Glass Run Channel
Nomination # 49
Body Exterior Category



DAIMLERCHRYSLER



All Plastic Glass Run Channel

Advantages to a Plastic Glass Run Channel Versus Previous EPDM Design:

- Cost Reduction
- Weight Reduction
- Improved Seal Performance
- Improved Appearance
- Environmentally Friendly



All Plastic Glass Run Channel

Application Specific	
Vehicle	Jeep Liberty
System Supplier	JYCO
Tooling Supplier	JYCO
Mold Supplier	JYCO
Material	ExxonMobil DSM Broche Hope Jacobs PPG



All Plastic Glass Run Channel :
Cost Savings Compared to EPDM Design

- Product cost was reduced by 32 %
- Price was reduced by \$26 per vehicle
- TPV Reduces Process Variability
- Energy Consumption of Extrusion Line is Reduced from 250kVA to 80kVA
- TPV Reduces Product Cycle Time
- TPV Reduces Weight



All Plastic Glass Run Channel :
Weight Reduction Compared to EPDM Design

- Weight Reduction of 2.64 kg per Vehicle
- Weight Reduction Helps Installation
- Causes Fuel Savings
- Division Bar Design Creates Structure with Plastic Instead of Metal



EPDM Design



TPV Design

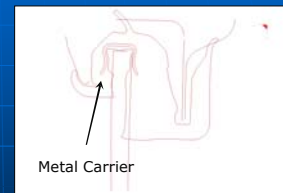


All Plastic Glass Run Channel :
Improved Seal Performance

Jyco's Design Replaced Metal with Plastic



Jyco's Cross-section of Rear Door Sail Mold



Previous Part



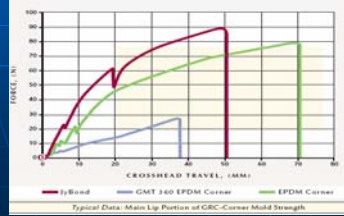
All Plastic Glass Run Channel : Improved Seal Performance Compared to EPDM Design

- JyBond™ Design and Process Technology
- Improved Design and Process Flexibility
- Better Sound Insulation
- Improved Appearance and Weathering
- Environmentally Friendly

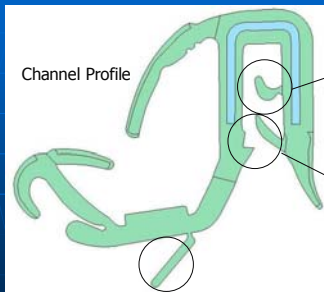


All Plastic Glass Run Channel : Improved Seal Performance

- Uniting multiple extrusions with a corner molding, JyBond™ design and process technology excels in bond strength, aesthetics, and sound insertion loss.



All Plastic Glass Run Channel : Improved Seal Performance



Modified gripper to improve retention

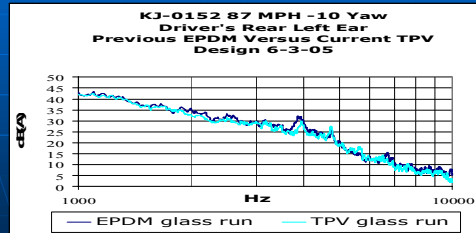
Reduced thickness of lower gripper lip and added retention feature to correct rear door header gapping condition

Added third lip to reduce wind noise and improve retention



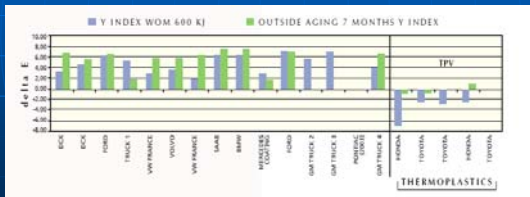
All Plastic Glass Run Channel : Improved Seal Performance

Overall performance is equal and greater than the previous product in wind noise.



All Plastic Glass Run Channel : Improved Appearance and Weathering

Exterior tests show that TPV won't chalk from UV exposure. Unlike compounded EPDM, TPV contains no ingredients that will leach, bloom or migrate to the surface.



All Plastic Glass Run Channel : Summary of Benefits

- Cost Savings by 32% - \$26 per vehicle
- Weight Reduction - 2.64 kg per Vehicle, Plastic Replaces Metal
- Improved Seal Performance - Joint Strength, Wind Noise, Design and Process Variability
- Improved Appearance and Weathering
- Environmentally Friendly - TPV is 100% Recyclable and Reduces Energy Consumption



Recognition

Our sincere thanks to ...

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