

# SEALING RECLINING MECHANISMS

**INDUSTRY:**  
Automotive

**APPLICATION:**  
Seat

**COMPONENT:**  
Recliner Key Mechanism

**LOCATION:**  
Canada & Mexico



## BACKGROUND

Wear protection is just one function of grease. Lubricants can also be used to create a barrier that protects components from corrosive elements. A leading supplier in automotive seating components experienced difficulties with their recliner key mechanism. During testing, the chemical bath used for e-coating the seat frame got inside the mechanism and removed the existing lubricant. This caused operating issues, particularly unwanted noise.

The OEM needed a grease that would seal the mechanism so that it could withstand the high temperatures of e-coating. The grease also needed to be compatible with plastics as the design included plastic side shield covers.

## CHALLENGE

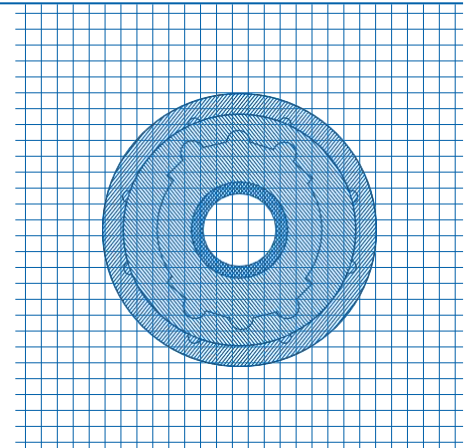
- Can the lubricant seal the recliner key mechanism to withstand e-coating?
- Can the lubricant resist high temperatures and harsh chemicals?

## SOLUTION

### UNIFLOR™ 8172

A PTFE thickened, light viscosity, completely fluorinated grease.

- Wide operating temperature range from -45 to 225°C
- Resistant to aggressive chemicals
- Excellent plastic and elastomer compatibility
- Specifications: DaimlerChrysler: MS-9987 & GM: 9985880



## RESULTS

The customer completed in-house testing of Uniflor™ 8172 against several other Nye greases. No other grease met the customer's temperature and compatibility requirements so the OEM ultimately selected Uniflor™ 8172 to replace the existing lubricant within their reclining mechanism. Uniflor™ 8172 successfully sealed the mechanism to enable e-coating and reduced the noise within the component. The customer remains satisfied with the product.

Base Oil Properties	Conditions	Uniflor™ 8172	Test Method
Chemistry		PFPE/PTFE	
Temperature Range		-45 to 225°C	
Kinematic Viscosity	40°C	167 cSt	ASTM D-445
Viscosity Index		120	ASTM D-2270
<b>Grease Properties</b>			
Penetration	Worked, 60x	278	ASTM D-217
Oil Separation	24 hrs, 100°C	3.8%	ASTM D-6184
Evaporation	24 hrs, 150°C	0.23%	ASTM D-972

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Nye Lubricants is a leader in the innovation, formulation and provision of synthetic lubricants, enabling and improving breakthrough products and critical new technologies. We bring proven experience, deep technical knowledge and customer focus to solve our customers' toughest challenges, adding tangible value to products in a wide range of industries and applications.

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