

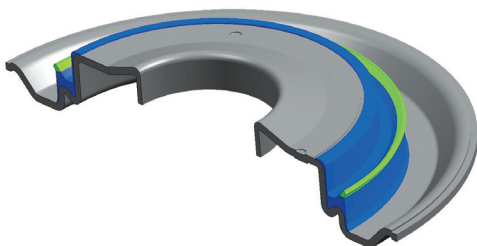


# BONDED PISTON SEALS

**Bonded piston seals (BPS)** from Freudenberg Sealing Technologies prove to be an exceptional value for the life of your transmission. By combining special elastomers, metal treatment, adhesive solutions, and manufacturing processes, these seals demonstrate superior performance throughout the life of the transmission. The BPS Lead Center is dedicated solely to the bonded piston seal product line, concentrating on in-depth solutions to a critical transmission component.

## BPS Components

- **A full range of elastomers** including ACM, AEM, or FKM formulated for high pressure and low wear applications
- **Structural metals** from AISI 1008 to HSLA 70 are selected based on Finite Element Analysis ensuring maximum yield and fatigue performance at the lowest metal usage
- **Solvent-based adhesive** used for superior bond in transmission applications
- **Controlled phosphate** provides a superior surface finish for mating seal products
- **Product traceability** on finished parts with a unique coding system, from molding to mixing and incoming material



## VALUES TO THE CUSTOMER

- Cost-effective throughout product lifetime
- Increased durability with specific solutions for lip geometry, elastomer, metal treatment, and surface finish
- Reduced part complexity and installation space
- Ease of assembly and installation
- Best-in-class design/process/materials
- Continuous improvement culture with product-focused engineering resources
- Enhanced customer service
- Increased market knowledge
- Reduced manufacturing variables

## BPS Lead Center

- Single location; all processes under one roof (except metal stamping) reducing variables on material freshness
- High material turnover within Kanban results in minimal variation of Key Process Indicators
- Standardized production equipment and handling ensures repeatable processes
- Optimized test equipment reduces functional testing up to 75% and delivers a shorter product-to-market time