

OEM/Specification ID Precix Compound #

Audi (refer to Volkswagen 2.8.1 – A/T 70) F95 13795
 Audi (refer to Volkswagen 2.8.1 / TL52424) G17 13430

BMW GS 93010 5516-FPM-70-M F05 13705
 BMW GS 93010 5505-FPM-75-M, GF® Type F86 13728
 BMW GS 93010 5519-FMQ-75-M G17 13430
 BMW GS 93010 5518-HNBR-80-M H95 14595

Chrysler MS-BZ832, Grade A1 FKM F80 13710
 Chrysler MS-BZ832, Grade A3 FKM F84 13717
 Chrysler MS-BZ832, Grade A4 FKM F33 13743
 Chrysler MS-BZ832, Grade C2 FKM F43 13742
 Chrysler MS-BZ832, Grade F3 FKM F77 13729
 Chrysler MS-BZ832, Grade F5 FKM F31 13731
 Chrysler MS-BZ832, Grade G3 FKM F05 13705
 Chrysler MS-BZ832, Grade G4 FKM F79 13724

Delphi 2HK715A1-10B37B38EF31EO78F15 F81 13711
 Delphi M54416 F84 13717
 Delphi M54427 F31 13731
 Delphi M54435 13704
 Delphi M54444 F04 13329
 Delphi M54444 F84 13717
 Delphi M54453 F05 13705
 Delphi M54453 F79 13724
 Delphi M54472 F85 13727
 Delphi M54498 F07 13723
 Delphi M54498 13733
 Delphi/Saginaw 7846478 F57 13671
 Delphi M54106 14387

Ford ESA-M9P7-A F52 13661
 Ford ESW-M2D100-A H76 14576
 Ford ESWM2D247 Type I M27 14481
 Ford ESWM2D247 Type III, Internal Lube M29 14482
 Ford WSA-M2D451-A2 M30 14492
 Ford WSA-M2D401-A5, GFLT® Type F77 13729
 Ford WSA-M2D401-A5, GFLT® Type F78 13730
 Ford WSA-M2D401-A6 G17 13430
 Ford WSA-M2D401-A8, GF® Type F86 13728

GM/Opel 6268M Type I F52 13661
 GM/Opel GM6269M Type I F78 13730
 GM/Opel 6268 & 6269M Type II G17 13430
 GM/Opel 6268 & 6269M Type III GF® Type F86 13728
 GM/Opel 6268M Type IV F99 13799

Jaguar (refer to Ford WSA-M2D401-A6) G17 13430
 Jaguar (refer to Ford WSA-M2D401-A8, GF® Type) F86 13728

Land Rover (refer to Ford WSA-M2D401-A6) G17 13430
 Land Rover (refer to Ford WSA-M2D401-A8, GF® Type) F86 13728

Magneti Marelli FKM Type A1 F75 13664
 Magneti Marelli FKM Type A2 F54 13754
 Magneti Marelli FKM Type B F47 13757
 Magneti Marelli FKM Type C F51 13751
 Magneti Marelli FKM Type D F79 13724
 Magneti Marelli FKM Type E F78 13730
 Magneti Marelli FKM Type F F35 13755
 Magneti Marelli FVMQ L54 13443

Renault 03-10-100/-D / 34-04-815/-H F86 13728
 Renault 03-10-100/-D / 34-04-815/-H G17 13430
 Renault 03-10-100/-D / 34-04- F95 13795
 Renault 03-50-000 Type 2 F75 13664

Volkswagen 2.8.1 – A/T 70 F95 13795
 Volkswagen 2.8.1 / TL52424 G17 13430

Volvo (refer to Ford WSA-M2D401-A6) G17 13430
 Volvo (refer to Ford WSA-M2D401-A8, GF® Type) F86 13728

GF®, GLT®, GFLT®, Viton®, Viton® Extreme™, Kalrez® are registered trademarks of DuPont Dow Elastomers.
 Vamac® is a registered trademark of DuPont™.

See complete list of Precix OEM approvals at www.precixinc.com



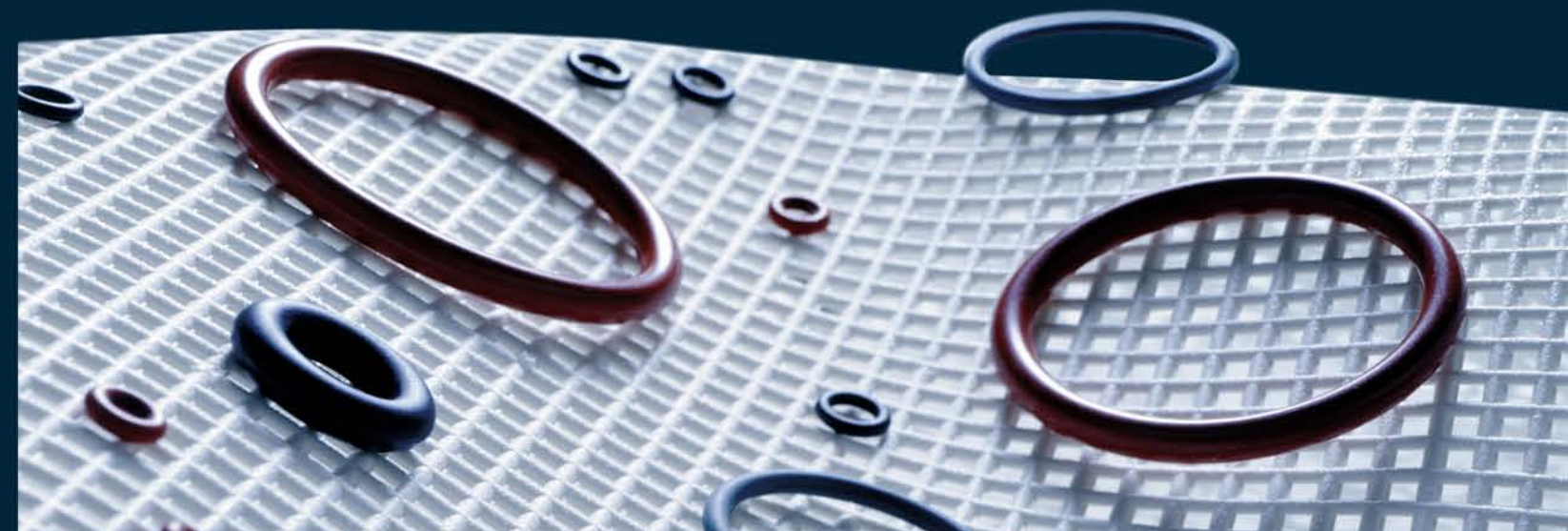
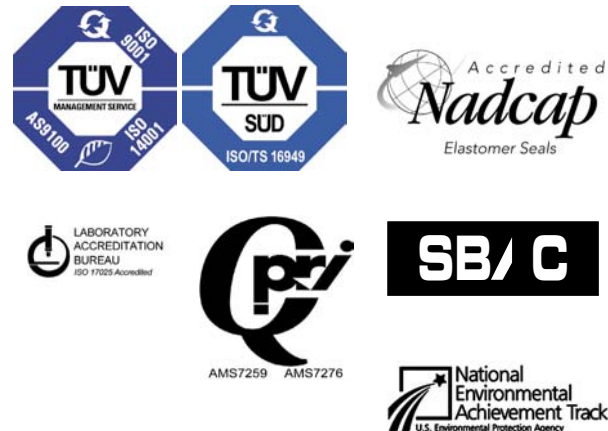
Give Precix® an opportunity to design and deliver the solutions you need by calling 508 998 4000 today or emailing sales@precixinc.com.
 744 Belleville Avenue
 New Bedford
 Massachusetts 02742 USA
 Tel 508 998 4000
 800 225 8505
 Fax 508 998 4100

Precix® Europe
 BWD Automotive GmbH
 Regerstrasse 4
 D-22761 Hamburg, Germany
 Tel +49 (40) 89 05 92 0
 Fax +49 (40) 89 05 92 33

europe@precixinc.com
www.precixinc.com

MAKERS OF ACUSHNET RUBBER

O-Rings • Custom Elastomer Solutions



SUCCESS DEMANDS PRECISION

Precix offers a family of uniquely formulated solutions that enable our customers to meet the most demanding challenges in sealing technology. O-rings formulated from the Precix family of performance compounds deliver solutions to your toughest problems like fluid compatibility (swell), low temperature performance, permeation resistance and electric static discharge.

THE PRECIX[®] FAMILY OF SOLUTION OPTIONS:

- F75 (FKM)
- F86/98 (GF[®] type)
- F79 (GLT[®] type)
- F77 (GFLT[®] type)
- F103 (-40TG)
- G17 (FVMQ)
- F52 (FKM/FVMQ blend)



THE CHALLENGE

FUEL COMPATIBILITY/FUEL RESISTANCE

THE SOLUTIONS - F86/98 & F77 & F103

Excess o-ring/seal swell in fuels translates into reduced performance and seal life. That's why Precix has a range of products that swell less and seal better longer. From our near-inert F86/F98 to the low swell, enhanced low temperature F77 and F103, Precix has you covered.

Check out the results of our extensive research into biodiesel and the effects of this growing fuel on fluorocarbon sealing compounds by contacting Precix Materials Engineering director via www.precixinc.com or email at mat-eng@precixinc.com.

THE CHALLENGE

LOW TEMPERATURE PERFORMANCE

THE SOLUTION - G17 & F103

For superior sealing in performance-driven low temperature environments, Precix has compounds that provide long-term performance in low temperatures while maintaining durability and service life requirements. Precix G17 and F103 provide outstanding low temperature performance in aggressive chemical environments and a wide range of temperatures and loads.

THE CHALLENGE

PERMEATION RESISTANCE

THE SOLUTION - F86/F98

Regulations are getting tougher – not only must automobiles not pollute via the exhaust, they must not allow fuel vapors to permeate through seals and gaskets. Through-seal permeation

resistance is and will be an important design consideration going forward. Precix F86/F98 GF[®] Type high-fluorine fluorocarbon offers the best permeation resistance in the industry today.

THE CHALLENGE

ELECTROSTATIC DISCHARGE

THE SOLUTIONS - F98 & F100

You or your customers may specify that an entire fuel system be able to dissipate an electric charge. The dissipative quality of Precix F98 and F100 provides protection against thermal incidences by allowing a charge buildup to pass through, not around, the seal. Random distribution (better dispersion) within the o-ring provides for uniform static dissipative properties and balanced shrink rates. F98- Dissipative fluorocarbon uses carbon nanotubes (10¹ - 10³ ohm cm-typical) in place of conductive carbon black.

F100 – Enhanced dissipative fluorocarbon using carbon nanotubes (under 5 ohm cm-typical). Static dissipation achieved with very low loading.

BENEFITS

- Excellent resistance to fuels/flex fuels
- Strong ability to dissipate static charge
- Excellent heat resistance
- Superior property profile
- More flexible than conductive carbon black filled products
- Maintains superior static dissipative properties under load/compression
- nanotubes carry the charge even under normal ring depression of 25% for instance
- Reduced permeation rates – nanotubes reduce through-seal permeation rates by 3 to 5 times vs. standard GF types
- Reduced volume swell in Fuel C and 85/15 blends



F75 (FKM)

F86/98 (GF[®] TYPE)

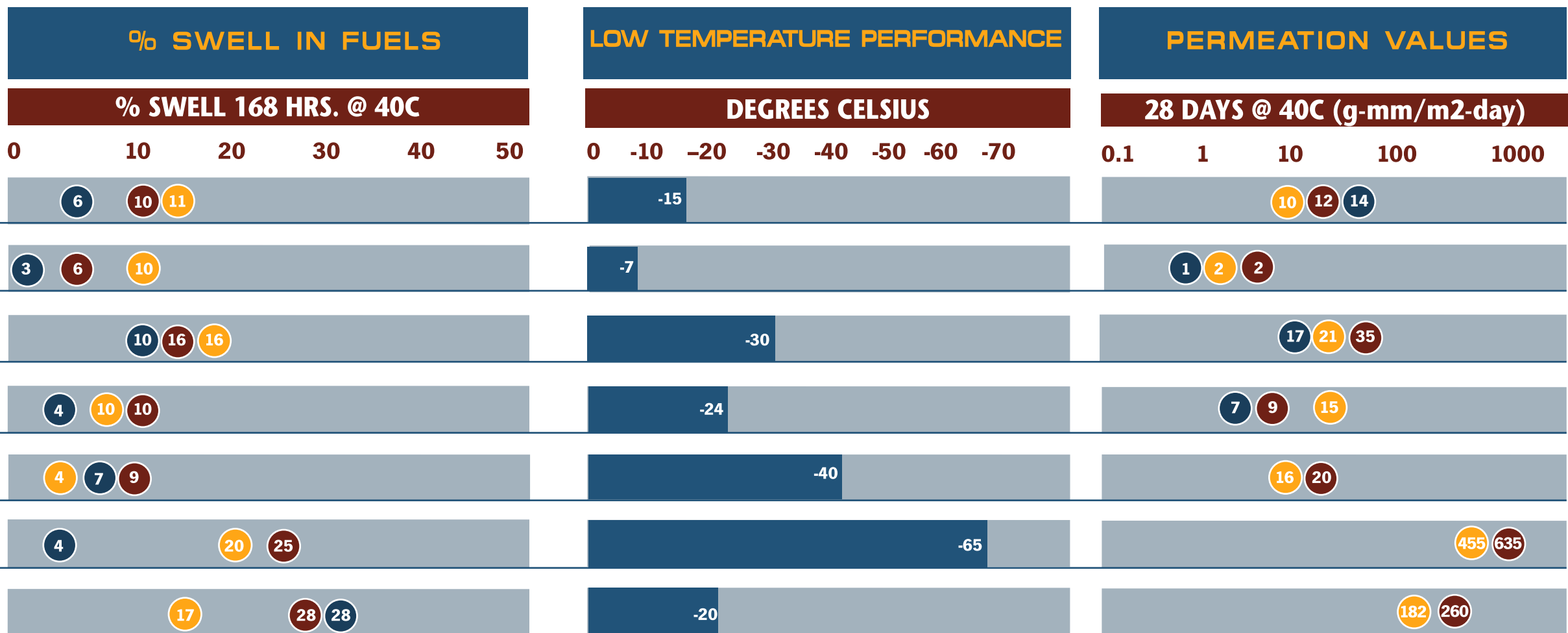
F79 (GLT[®] TYPE)

F77 (GFLT[®] TYPE)

F103 (-40TG)

G17 (FVMQ)

F52 (FKM/FVMQ BLEND)



KEY: ● Fuel C ● CE-85 Ethanol ● 100% Ethanol

■ TR-10 (Astm D1329)

* GF, GLT, GFLT are registered trademarks of DuPont