PennGrade®
Multi-Purpose Automatic Transmission Fluid

Product Description
PennGrade® Multi-Purpose ATF is a fully synthetic high viscosity automatic transmission fluid that supports the performance requirements in a vast majority of today’s automatic transmissions, including Allison, BMW, Honda, Ford, Mercedes Benz, Mitsubishi, Nissan, Toyota, Volkswagen, Voith, Volvo, ZF, and many others. PennGrade® Multi-Purpose ATF is suitable for severe service applications (up to 50,000 miles) and for extended drain intervals in normal service applications (up to 100,000 miles). It offers excellent corrosion resistance to all types of metals used in transmissions and hydraulic systems, plus provides superior friction retention and thermal and oxidation stability. PennGrade® Multi-Purpose ATF can be used in a broad variety of multi-vehicle applications found in on- and off- highway service as well as marine and industrial applications.

Product Features and Benefits
- Friction modifiers control lock-up rates of clutch packs for proper transmission shifting characteristics and efficient power transfer.
- Controls seal deterioration to limit fluid leakage.
- Specifically formulated for extra wear control and rust protection for longer equipment life.
- Special detergent/dispersant additives limit formation of sludge and varnish deposits which interfere with proper transmission operation.
- Multi-grade for optimum performance during cold starts and high temperature operations, including start/stop severe service.
- Formulated to be compatible with the metallurgy used in most modern transmissions and high-pressure hydraulic systems.
- Provides efficient heat removal from clutch surfaces to extend clutch life and reduce clutch shudder in modulated torque converters.
- Full synthetic for longer fluid life and faster oil flow in low temperature operation.
Typical Applications

Supports the performance requirements of:

Aisin Warner AW-1
Aisin Warner JWS3309
Allison C-4
Allison TES 295
Allison TES 389B
Audi/VW TL 052 162
Audi/VW TL 052 990
Audi/VW TL 055 025-A
Audi/VW Porsche
000.043.204 63
000.043.205.28
BMW 83 22 0 026 922
BMW 83 22 9 407 807
BMW MINI 83 22 7 542 290
Daihatsu Ammix D-III ATF
FCA ATF+4
FCA MOPAR AS68 / 69RC
FCA Chrysler MS-1872
FCA Chrysler MS-5931
FCA Chrysler MS-108388
Ford WSS-M2C924-A
Ford Merc V
Ford FNR5
Ford WSS-M2C138
Ford WSS-M2C922
Ford XL-12
Ford WSS-M2C195-A
GM Auto Trak II
GM IID, GM IIIF, GM IIG
GM IIIH, GM III
GM T-IV Transmission Fluid
GM ATF Saturn T-IV
GM AW-1 Transmission Fluid
GM TASA
GM Power Steering Fluid
GM 9985010
GM 9985835
Honda ATF-Z1
Hyundai/KIA Red-1
Hyundai/KIA JWS 3314
Hyundai/KIA JWS 3317
Hyundai/KIA SP-II
Hyundai/KIA SP-III
Hyundai/KIA PSF-3
Jaguar WSS-M2C922-A1
JASO 1-A
Jatco Texaco 402
Jatco 3100 PL085
MAN 339-V-1
MAN 339-Z-1
MAN 339F
Mazda M-III
Mazda M-V
Mercedes Benz 236.1
Mercedes Benz 236.10
Mercedes Benz 236.11
Mercedes Benz 236.2
Mercedes Benz 236.3
Mercedes Benz 236.5
Mercedes Benz 236.6
Mercedes Benz 236.81
Mercedes Benz 236.9
Mercedes Benz 236.91
Mercedes Benz GL-450
Mitsubishi Phase II
Mitsubishi SP-III
Mitsubishi Diamond SP-III
Mitsubishi Dia Queen
ATF J2
Mitsubishi PS Fluid
Nissan Matic C
Nissan Matic D
Nissan Matic J
Nissan Matic K
Nissan PSF-II
North American OEM
High Viscosity ATF
PSA B71 2340
Renault DP-0
Saab 93165147
Saab Power Steering Fluid 2634
Subaru ATF
Subaru ATF HP
Subaru Power Steering Fluid
Suzuki 3314
Suzuki 3317
Toyota T
Toyota T-1, T-II & T-III
Toyota T-IV
Toyota PSF Type EH
Volvo H55.6335
Volvo 1161621 & 1161521
Volvo 1161640 & 1161540
Volvo 31256774
Volvo P/N 97340
Volvo AT 101 (P/N 97341)
ZF LifeGuard Fluid 5
ZF TE-ML 03D
ZF TE-ML 04D
ZF TE-ML 05L
ZF TE-ML 09
ZF TE-ML 11 (3 and 4 speeds)
ZF TE-ML 14A
ZF TE-ML 16L
ZF TE-ML 17C
ZF TE-ML 21L

1 The ability of D-A to claim suitable for use for any specification does not imply that these products are sponsored, approved, licensed or affiliated with Allison Transmission. This claim states that through testing we have determined that PennGrade® Multi-purpose Automatic Transmission Fluid meets the known performance requirements of the TES 295® and TES 389B® specifications.

NOTE: ATF recommendations may vary between models from manufacturer. Please consult the owner’s manual for the correct fluid recommendations.

Typical Properties

<table>
<thead>
<tr>
<th>PennGrade® Multi-purpose ATF</th>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity @ 100°C, cSt</td>
<td>ASTM D445</td>
<td>7.2</td>
</tr>
<tr>
<td>@ 40°C, cSt</td>
<td>ASTM D445</td>
<td>34.0</td>
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<tr>
<td>Viscosity Index</td>
<td>ASTM D2270</td>
<td>180</td>
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<tr>
<td>Pour Point, °F (°C)</td>
<td>ASTM D97</td>
<td>-47 (-44)</td>
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<tr>
<td>Flash Point, °F (°C)</td>
<td>ASTM D92</td>
<td>400 (204)</td>
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<tr>
<td>API Gravity</td>
<td>ASTM D4052</td>
<td>34.6</td>
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</tbody>
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D-A Part Number:
Bag-in-a-box – 6 Gal 54565

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