

RAVENOL®

OIL TEST ANALYSIS AHC FLUID



RESULTS OF THE OIL ANALYSIS

| Parameters Measurement methods | Unit | Toyota Suspension Fluid AHC | RAVENOL AHC Fluid |
|--|--------------------|--|------------------------------|
| Viscosity 40°C E-DIN 51659-2:2014-08 | mm ² /s | 10,42 | 10,36 |
| Viscosity 100°C E-DIN 51659-2:2014-08 | mm ² /s | 2,86 | 2,87 |
| Brookfield -40°C ASTM D 2983:2009 | mPa·s | 2610 | 984 |
| CCS -40°C ASTM D 5293:2015 | mPa·s | 1898 | 1036 |
| Pour Point DIN ISO 3016:1982-10 | °C | -48 | -60 |
| VKA AW 40kg 1hr DIN EN ISO 20623:2018-04 | mm | 0,47 | 0,45 |
| KRL 20hr KV100°C DIN 51350-6:1996-08 | mm ² /s | 2,78 | 2,85 |
| Shear stability, viscosity loss | % | 2,94 | 0,59 |
| Foaming test sequence I ASTM D 892:2013 | ml/ml | 30/0 | 0/0 |
| Foaming test sequence II ASTM D 892:2013 | ml/ml | 20/0 | 0/0 |
| Foaming test sequence III ASTM D 892:2013 | ml/ml | 30/0 | 0/0 |
| Copper Corrosion ASTM D130: 2012 | - | 1a | 1a |

BROOKFIELD -40°C

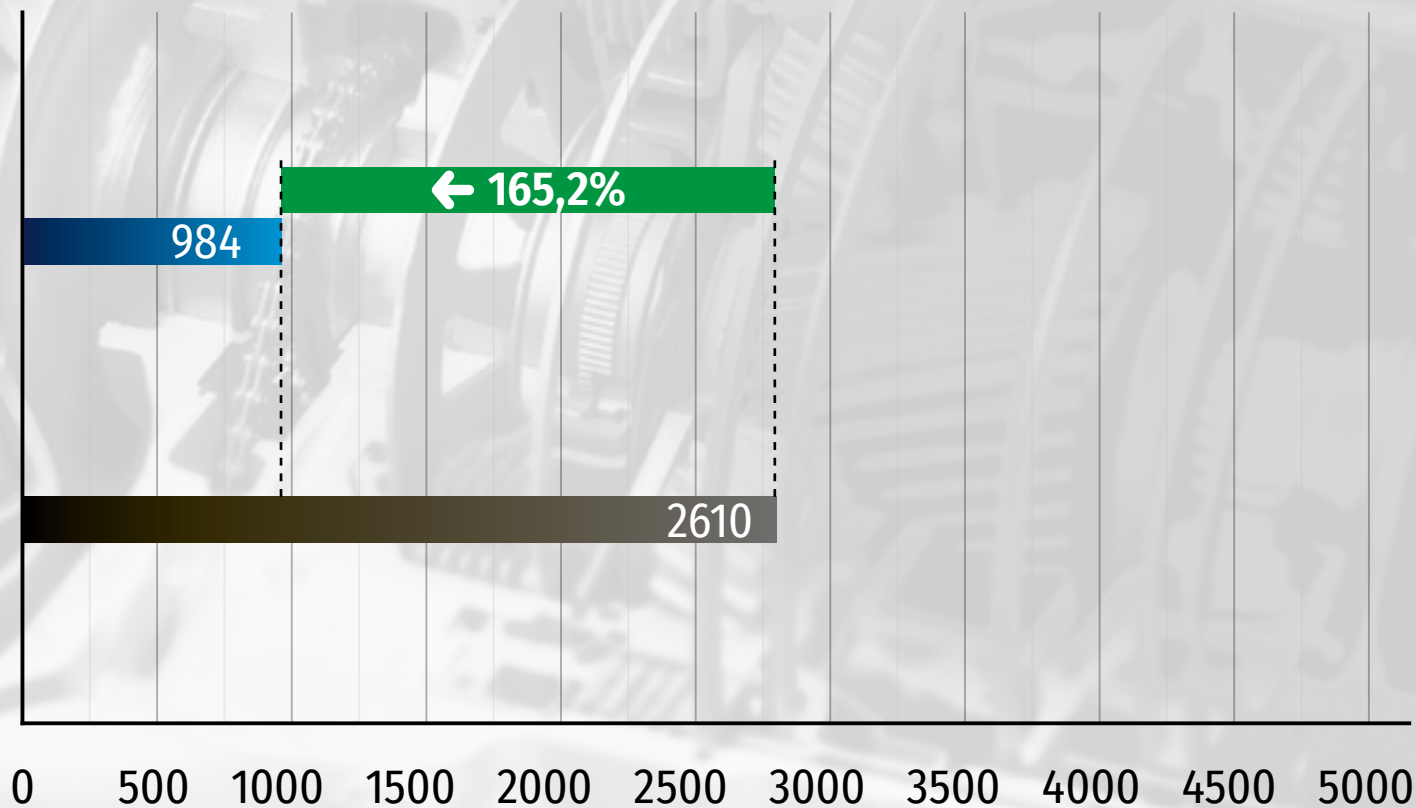
ASTM D 2983:2009

Lower values are better



RAVENOL
AHC FLUID

TOYOTA
SUSPENSION FLUID AHC

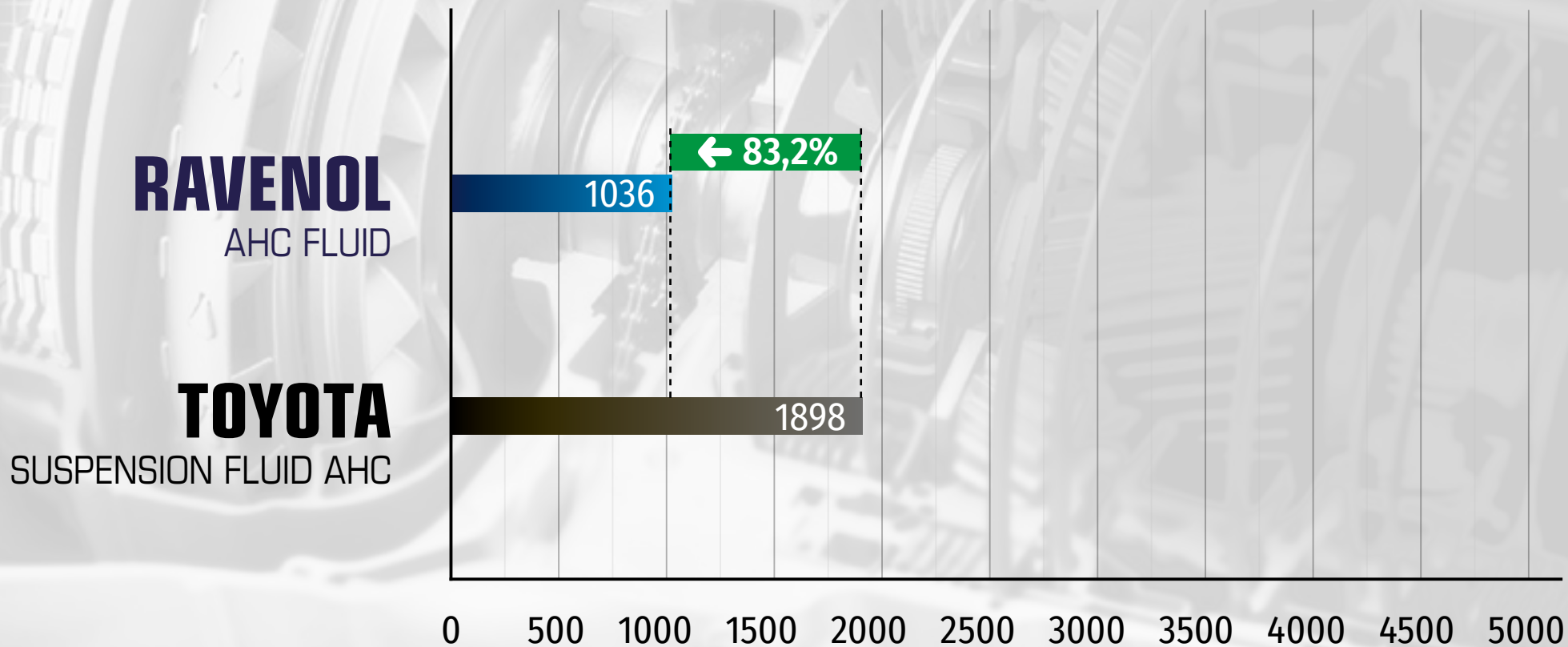


MPA·S

CCS -40°C

ASTM D 5293:2015

Lower values are better



MPA·S

POUR POINT

DIN ISO 3016

Lower values are better

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-60

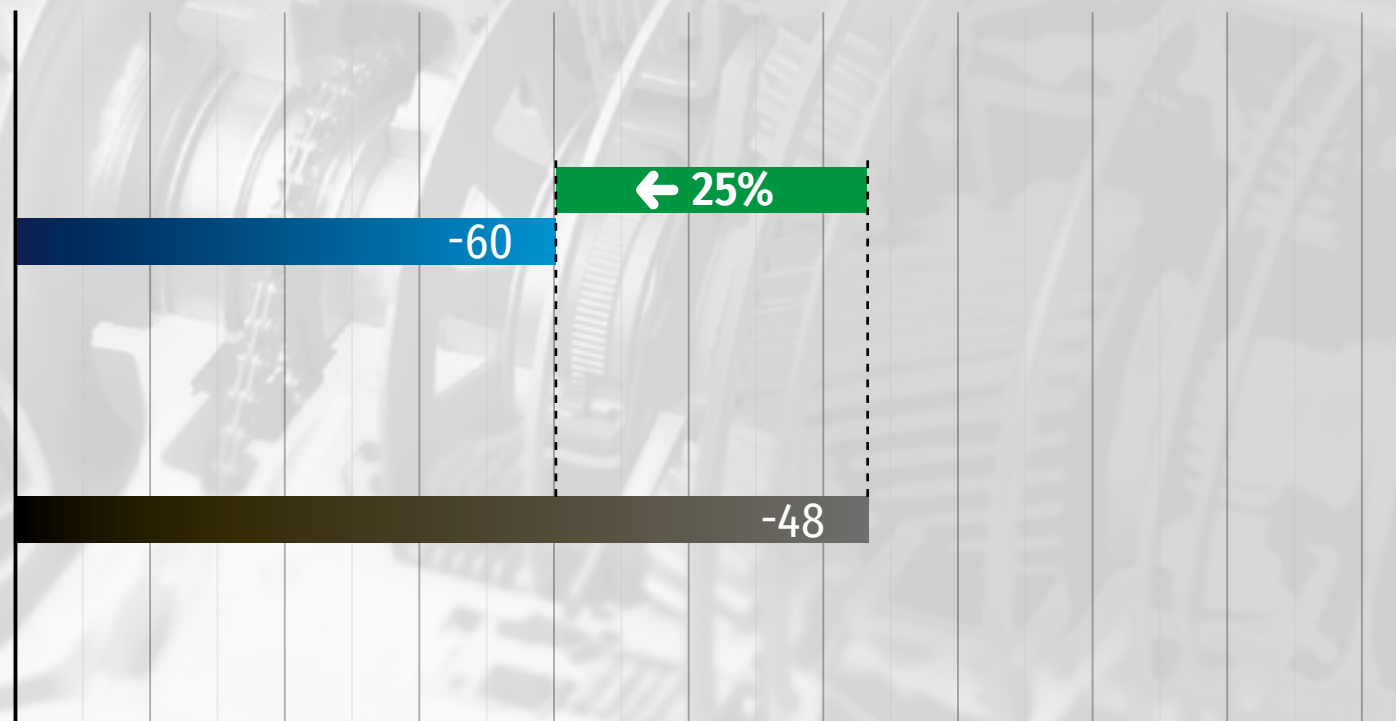
← 25%

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-48

-80 -75 -70 -65 -60 -55 -50 -45 -40 -45 0

°C



VKA AW 40KG 1HR

VKA = VIERKUGEL-APPARAT

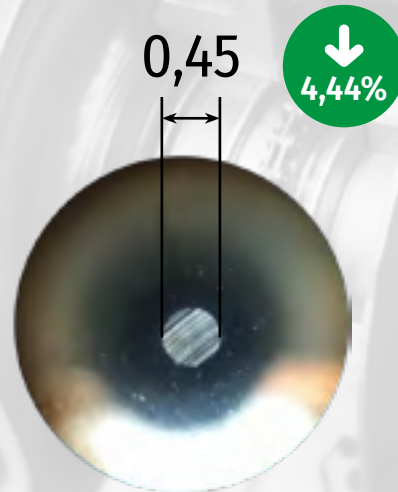
FBT = FOUR BALL TESTER

WEIGHT 40 KG CYCLE TIME 1 HOUR

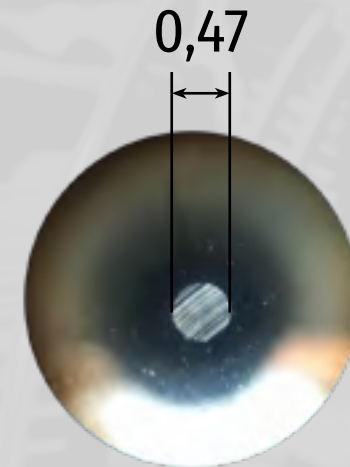
The higher the welding force or the lower the wear values of an oil or grease, the better its wear protection when subjected to pressure load.



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MM

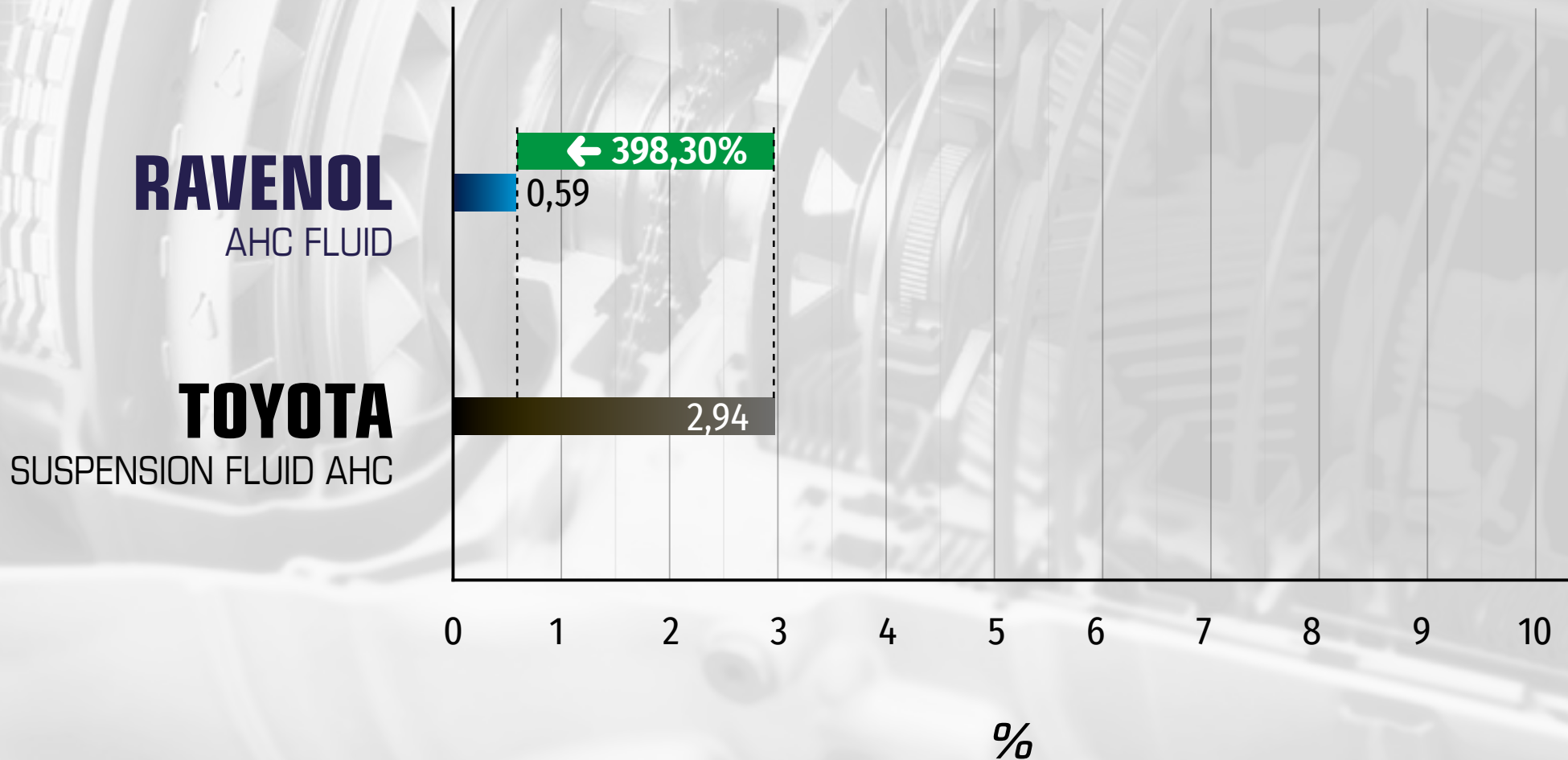


SHEAR STABILITY, KRL, VISCOSITY LOSS

DIN 51350-6

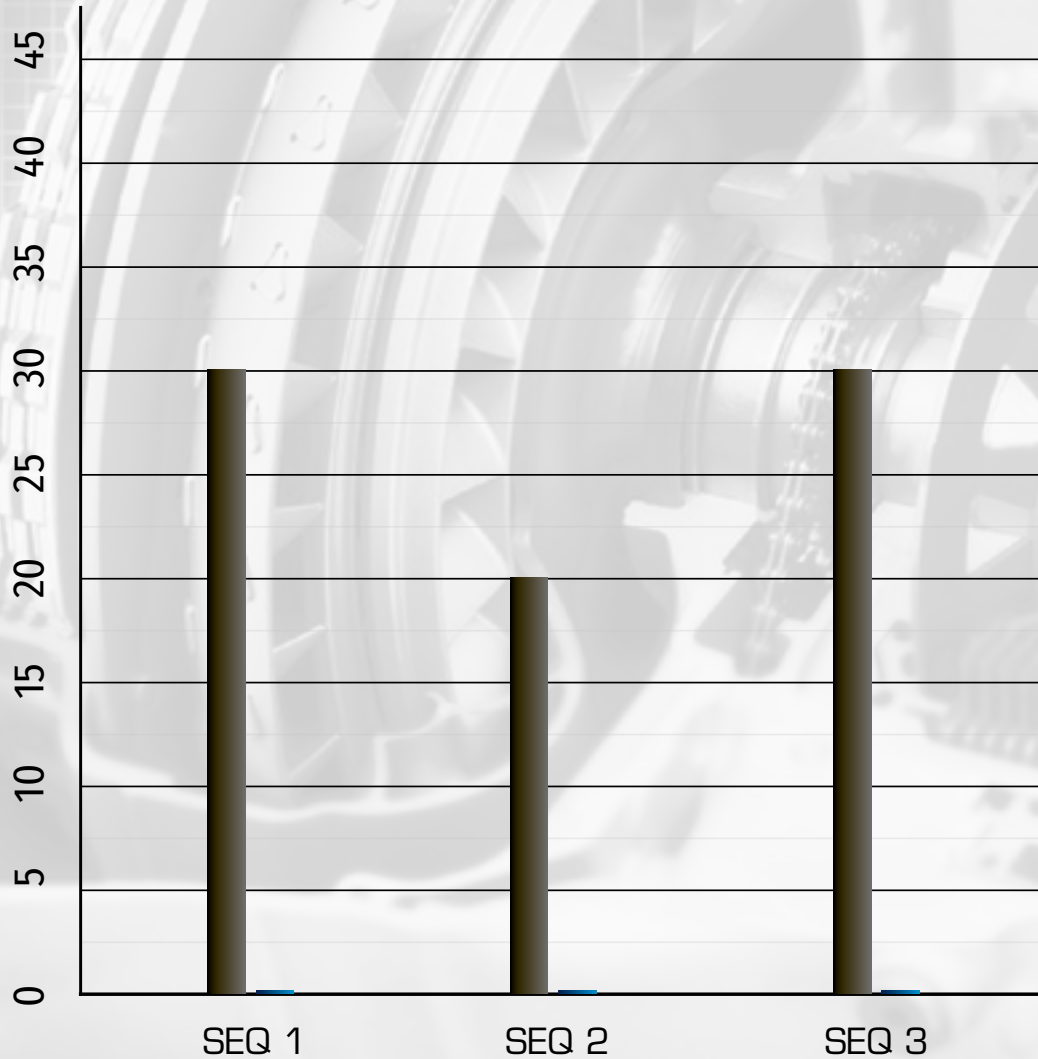
TAPERED ROLLER BEARING TEST 20-HOUR CYCLE

Lower values are better



FOAM TEST

The less foam the better.



| Parameters Measurement | SEQ 1 ASTM D 892:2013 | SEQ 2 ASTM D 892:2013 | SEQ 3 ASTM D 892:2013 |
|-----------------------------|--------------------------|--------------------------|--------------------------|
| Unit | ml/ml | ml/ml | ml/ml |
| Toyota Suspension Fluid AHC | 30/0 | 20/0 | 30/0 |
| Ravenol AHC Fluid | 0/0 | 0/0 | 0/0 |

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COPPER STRIP TEST: EFFECT OF CORROSION ON COPPER

ASTM D130: 2012

Test duration 3 hr
 Temperature: 150 °C
 Lighter results are better



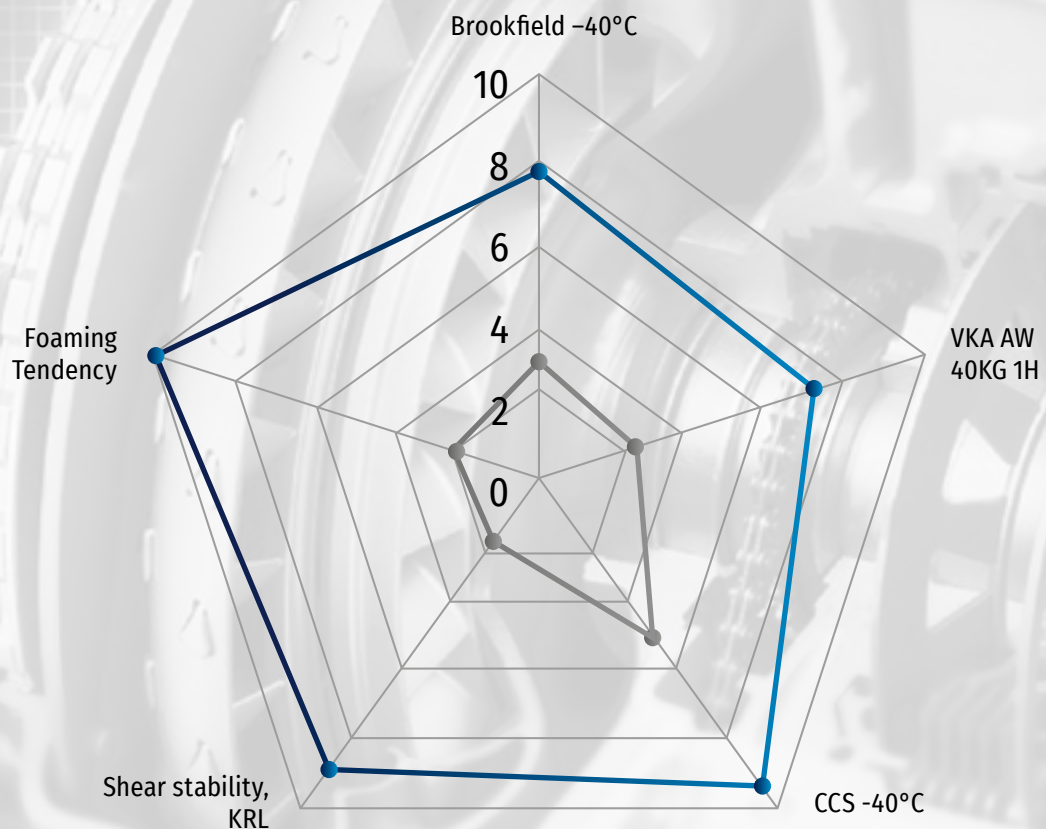
FRESHLY POLISHED

RAVENOL AHC FLUID

TOYOTA SUSPENSION FLUID AHC

| | | | | | | | | | | | | |
|------------------|----------------|----|------------------|----|----|----|--------------|----|-----------|----|----|----|
| | | | | | | | | | | | | |
| FRESHLY POLISHED | 1A | 1B | 2A | 2B | 2C | 2D | 2E | 3A | 3B | 4A | 4B | 4C |
| | SLIGHT TARNISH | | MODERATE TARNISH | | | | DARK TARNISH | | CORROSION | | | |

TEST RESULTS



| Parameters Measurement methods | Unit | Toyota Suspension Fluid AHC | RAVENOL AHC Fluid |
|--------------------------------------|-------|-----------------------------------|----------------------|
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| Toyota Suspension Fluid AHC | 30/0 | 20/0 | 30/0 |
| Ravenol AHC Fluid | 0/0 | 0/0 | 0/0 |

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