ELECTRO-RHEOLOGICAL FLUID
LID 3354d

PRODUCT DESCRIPTION
LID 3354d is an electro-rheological fluid made up of 37.5% by volume of sub 45 µm polymer particles in a density matched silicone based oil. It is designed for use as a general-purpose ER fluid with an optimal balance of critical properties and good engineering behaviour. Solid and liquid are density matched to minimise settling.

APPLICATIONS
LID 3354d can be used in suitable equipment wherever electronic control of mechanical properties is required, such as in controlled dampers, actuators, clutches, brakes and valves.

PHYSICAL PROPERTIES
Density: 1.46 x 10^3 kg/m^3
Viscosity: 110 mPa.sec at 30°C
Boiling Point: > 200°C
Flash Point: >150°C
Auto Ignition Point: N/A
Vapour Pressure: N/A
Vapour Density: N/A
Freezing Point: < -20°C
Insoluble in Water
Does not attack elastomers

DYNAMIC YIELD STRESS AT 30°C

PLASTIC VISCOSITY AT 30°C

CURRENT DENSITY AT 30°C

Fitted to $Y_d = AE^2$
$A = 0.19$ kPa.mm^2/kV^2

Fitted to $J = PE + QE^2$
$P = -10 \times 10^{-9}$ A/V.m
$Q = 15.7 \times 10^{-15}$ A/V^2
GENERAL INFORMATION
For safe handling of this product, consult the Material Safety Data Sheet (msds3354d.doc)

Durability
No deterioration in performance has been observed during long-term use in closed systems, where the fluid has been operated within its specification.

Storage
Products stored in closed containers at room temperature have not shown deterioration after storage periods greater than four years.

Note
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user’s responsibility to determine suitability for the user’s purpose of any data mentioned herein and to adopt such precautions as may be advisable for the protection of persons and of property against any hazards which may be involved in the handling and use thereof. Smart Technology Ltd specifically disclaim all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of their products. Smart Technology Ltd specifically disclaim any liability for consequential or incidental damages of any kind, including lost profits. We recommend that each prospective user test his proposed application before repetitive use, using these data as a guide.

The product is covered by one or more patents or patent applications.

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