

Liveo™ 360 Medical Fluid 350 cSt

Silicone Coating Fluids

Liveo™ 360 Medical Fluid is a clear, colorless polydimethylsiloxane liquid that is available in five standard viscosities.

Applications:

Silicone fluid for lubrication and siliconization of glass, metals, plastics and rubber.

Available in five standard viscosities, High water repellency/hydrophobicity, Good stability over a broad range of temperatures, Excellent lubricating characteristics, Low surface tension, Low order of toxicity and skin sensitization.

Packaging:

The material is supplied in 0.45, 18, and 200 kg containers, net weight.

Product information

Colour Transparent

Basis PDMS

Rheological properties

Viscosity 340 mPa.s

Other properties

Density 970 kg/m³ ISO 1183

Refractive index 1.404 -

APHA colour 15 - ASTM D 1209

Storage and stability

Shelf life 60 months

Characteristics

Compatibility Polyamides, Polyesters, Polyacetals, Polyolefins, Polycarbonate, Styrenics,

Polyvinylchloride, Polyurethane, Silicones, Rubber, Glass, Metals

Additional Information

How to use Liveo™ 360 Medical Fluid can be applied directly to surfaces by techniques

such as dipping, spraying or wiping to provide a lubricious and/or hydrophobic

coating.

When a very thin film of fluid is desired, Liveo™ 360 Medical Fluid can be diluted to the desired silicone fluid concentration (such as 0.1 to 2%) in a

nonpolar solvent.

Revised: 2020-09-07 Page: 1 of 3



Liveo™ 360 Medical Fluid 350 cSt

Silicone Coating Fluids

After Liveo™ 360 Medical Fluid has been applied, allow sufficient time to permit the solvent to evaporate.

Although Liveo™ 360 Medical Fluid possesses excellent lubricant characteristics, the fluid may not provide satisfactory lubrication when used in situations such as metal against metal. On temperature resistant materials, such as glass, ceramic and metal, this fluid film can be heated to provide a more durable hydrophobic film.

Liveo™ 360 Medical Fluid can be applied to silicone elastomers for temporary lubricity. Before exposing a silicone elastomer to a silicone fluid, the user should evaluate the effect of the exposure on the performance.

Blending: Although the fluid is available in a number of standard viscosities, occasionally an application calls for a fluid of an intermediate viscosity. Blending of different viscosities of Liveo $^{\text{TM}}$ 360 Medical Fluid permits any desired viscosity between 20 and 12,500 cSt.

The blending chart is a guideline for preparing intermediate fluid viscosities. To use the blending chart:

- 1. Draw a line between two points one on the left-hand scale representing the higher-viscosity fluid available, and one on the right, the lower-viscosity fluid:
- 2. Draw another line horizontally across the chart at the desired viscosity rating;
- 3. Draw a third line vertically through the intersection of the first two lines;
- 4. Read from the top and bottom scales the proportions of the available fluids to blend to obtain the desired viscosity.

Accuracy is increased by blending the two fluids that immediately bracket the desired viscosity. If a very accurate blend is required, it may be necessary to adjust the viscosity of the mixture by a second blending.

The example shown in the blending chart is as follows: 150 cSt fluid is desired. The standard viscosities immediately bracketing 150 cSt are 100 and 350 cSt. Draw line A connecting 350 cSt on the left-hand scale with 100 cSt on the right-hand scale. Draw line B horizontally at the desired viscosity of 150. At the point of intersection, AB, draw vertical line C. The proportion of 100 cSt viscosity fluid (67%) is read on the bottom scale; the proportion of 350 cSt viscosity fluid (33%) is read on the top scale.

COMPATIBILITY

Liveo™ 360 Medical Fluid is soluble in all proportions in non-polar solvents: Aliphatic hydrocarbon (e.g., hexane, heptane, mineral spirits) Aromatic hydrocarbon (e.g., toluene, xylene)

Revised: 2020-09-07 Page: 2 of 3



Liveo™ 360 Medical Fluid 350 cSt

Silicone Coating Fluids

Several ozone-safe, volatile organic compound (VOC)-exempt solvents are compatible with Liveo™ 360 Medical Fluid: Liveo™ Q7-9180 Silicone Fluids

Chemical Media Resistance

Alcohols

- ✓ Isopropyl alcohol, 23°C
- X Methanol, 23°C
- X Ethanol, 23°C

Hydrocarbons

- ✓ n-Hexane, 23°C
- ✓ Toluene, 23°C
- ✓ iso-Octane, 23°C

Ketones

✓ Acetone, 23°C

Ethers

✓ Diethyl ether, 23°C

Other

- ✓ Ethyl Acetate, 23°C
- X Water, 23°C

Sterilisation methods

- X Autoclave Steam, 30min at 120°C
- X Gamma Radiation, 50 kGy

Symbols used:

✓ possibly resistant

Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

★ not recommended - see explanation

Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

Revised: 2020-09-07 Page: 3 of 3

The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2020 DuPont. All rights reserved.