



Technical Data Sheet

DOWSIL™ FC-5002 IDD Resin Gum

INCI: Isododecane (and) Trimethylsiloxysilicate/Dimethiconol Crosspolymer

Features & Benefits

- Film former
- Long lasting
- Non-occlusive
- Flexible film for comfort
- Suitable for pigmented formulations

Composition

- 40% polymer in isododecane

Applications

- Personal care applications including color cosmetic

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test ¹	Property	Unit	Result
CTM 0176	Appearance		Clear to slightly hazy liquid
CTM 0050 EA	Viscosity at 25°C	mPa.s	114
CTM 0086 VI	Non-volatile content, 3–5 g/1 h/200°C	%	40
CTM 0910	Flash point – closed cup	°C	43
	Cyclotetrasiloxane (D4) content	%	< 0.1
	Cyclopentasiloxane (D5) content	%	< 0.1

1. CTM: Corporate Test Method. Copies of CTMs are available on request.

Description

DOWSIL™ FC-5002 IDD Resin Gum is made of approximately 40% of Trimethylsiloxysilicate/Dimethiconol Crosspolymer dissolved in isododecane. After evaporation of the isododecane, the silicone polymer forms a film on skin.

This silicone polymer is available in alternative carriers.

How to Use

This is a low viscosity fluid that is easily incorporated into a variety of personal care formulations.

Formulation Tips

When heat is used, the material should be processed in an enclosed vessel to prevent the isododecane volatilizing; the vessel should be inert at temperature over 35°C.

Table 1: Compatibilities with common cosmetic ingredients

Ratio of DOWSIL™ FC-5002 IDD Resin Gum: other material	1:9	5:5	9:1
Esters			
Caprylic/capric triglycerides	NC	NC	C
Isopropyl myristate	C	C	C
Isopropyl palmitate	C	C	C
C12-15 alkyl benzoate	NC	NC	NC
Hydrocarbons			
Isohexadecane	C	C	C
Mineral oil	NC	C	C
Hydrophilics			
Water	NC	NC	NC
Ethanol absolute 98%	NC	C	C
Sunscreen agents			
Octyl methoxycinnamate			C
Ethylhexyl salicylate			C
Octocrylene			C
Vegetable oils			
Castor oil	NC	NC	NC
Jojoba oil	NC	NC	C
Sunflower oil	NC	NC	C
Silicones			
DOWSIL™ 556 Cosmetic Grade Fluid	C	C	C
DOWSIL™ FZ-3196 Fluid	C	C	C
XIAMETER™ PMX-200 Silicone Fluid 2 cSt	C	C	C
XIAMETER™ PMX-200 Silicone Fluid 5 cSt	C	C	C
DOWSIL™ 5562 Carbinol Fluid	C	C	C

C = Compatible
NC = Not Compatible

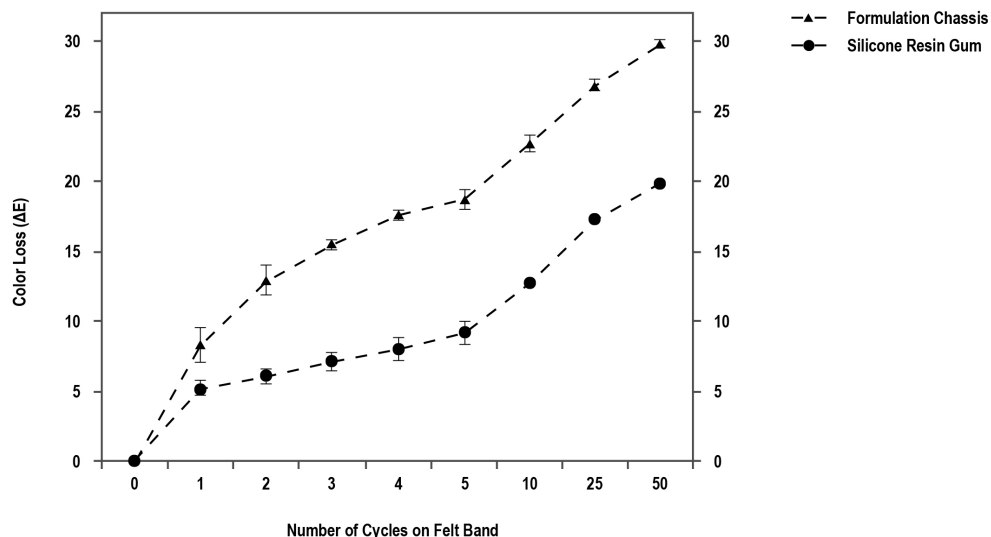


Figure 1: Foundation durability to evidence resistance of Silicone Resin Gum compared to control formulation ($\Delta E \pm$ standard deviation).

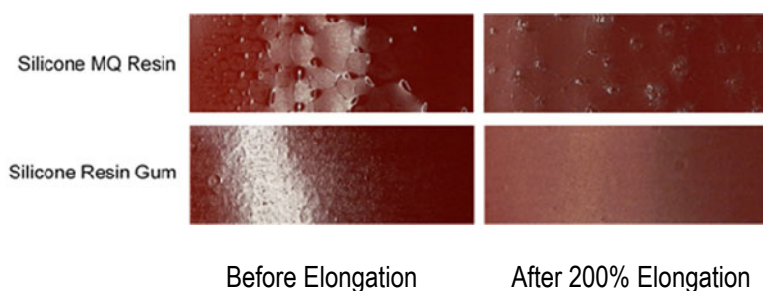


Figure 2: Film flexibility of pure films demonstrated on red elastic band showing the absence of cracks for the Silicone Resin Gum compared to Silicone MQ Resin to evidence the comfort to wear of the Silicone Resin Gum.

Handling Precautions

Isododecane may cause skin irritation upon repeated and prolonged exposures. Proper dilution of this product into consumer personal care end products is recommended.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored between -10°C and 35°C in the original unopened container, this product has a usable life of 1800 days.

Packaging Information

This product is available in 144 kg drum and 16 kg pail.

Samples are available in 390 g bottle.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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