

## *Dow Corning*<sup>®</sup> TI-7012 Solid Resin

### **FEATURES & BENEFITS**

- Film former
- Permeable film
- Excellent wash off resistance
- Sebum resistance
- Long lasting
- Non-occlusive
- SPF enhancement potential
- Non tacky feel when dried
- Formulation flexibility
- Solventless
- Compatible with silicones and organic carriers

### **COMPOSITION**

- MQ Solid resin
- INCI name:  
Trimethylsiloxysilicate

### **REGULATORY SUPPORT**

#### Ingredient Information Package (IIP)

- Ingredient Regulatory Information
- Elemental Impurities
- Summary of Health Data or Opinion Letter

Formulation ingredient for topical consumer healthcare applications

### **APPLICATIONS**

- *Dow Corning*<sup>®</sup> TI-7012 Silicone Resin is commonly used in topical formulations due to its long lasting, film barrier and wash-off resistance properties.
- Such silicone solid resin is currently used in a range of dermatological consumer healthcare or medicated skin care applications including protective creams, barrier creams, sticks and sprays, insect repellent products, as well as sunscreen creams and lotions.

### **TYPICAL PROPERTIES**

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

CTM <sup>1</sup>	Property	Unit	Result
0176 B	Appearance		White Flakes
	Specific gravity		1.23
	Flash point (closed cup)	°C	>100

<sup>1</sup>CTM: Corporate Test Method, copies of CTM's are available on request.

### **DESCRIPTION**

*Dow Corning* TI-7012 Solid Resin is 100% trimethylsiloxysilicate resin. This solid silicone resin provides a permeable long lasting film. In sunscreens *Dow Corning* TI-7012 Solid Resin can enhance the SPF wash-off resistance.

### **SPECIFIC TESTING**

- Infrared identification on each batch
- Tested for elemental impurities according to <232> and ICH Q3D guideline for metal impurities, every 2 years

### **HOW TO USE**

*Dow Corning* TI-7012 Solid Resin can be dissolved in different organic carriers and silicone oils up to a concentration of 50% or more. Table 1 details the compatibility with common topical ingredients at 50% concentration. It is recommended to add the resin slowly to the oil phase under agitation to prevent the resin from forming aggregates that are then difficult to re-disperse or dissolve. *Dow Corning* TI-7012 Solid Resin increases the viscosity of the final blend, according to the resin concentration and the fluid nature. Increasing viscosity can improve the stability of emulsions and sticks. Added as ingredients in formulation, *Dow Corning* TI-7012 Solid Resin can improve the friction resistance of the formulation, which is beneficial to protective and barrier creams as well as sprays.

## REGULATORY INFORMATION

*Dow Corning* TI-7012 Solid Resin is produced at a Dow Corning manufacturing site registered as part of Dow Corning's global quality system according to ISO 9001:2008.

Dow Corning can provide an Ingredient Information Package (IIP) containing the following information:

- Ingredient Regulatory Information
- Elemental Impurities
- Summary of Health Data or Opinion Letter

## HANDLING

### PRECAUTIONS

**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 CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.**

## USABLE LIFE AND STORAGE

No special storage measures are required. When stored at or below 32°C in the original unopened container, the product has a usable life of 24 months.

## PACKAGING INFORMATION

This product is available in 20 kg bags.

Samples are available in 500 g.

## LIMITATIONS

This product is neither tested nor represented as suitable for specific pharmaceutical use. However, should you wish to use this product in pharmaceutical application, please contact Dow Corning to discuss such potential use.

It is the user's role responsibility to ensure that their intended use of these materials complies with all regulatory and legal requirements applicable to such use in each relevant jurisdiction including targeted geographic regions of manufacture and supply.

## HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, [dowcorning.com](http://dowcorning.com) or consult your local Dow Corning representative.

## LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customers' tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the 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, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.**

**DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

*We help you invent the future.™*

[dowcorning.com](http://dowcorning.com)

**Table 1: Compatibility of Dow Corning® TI-7012 Solid Resin with common topical ingredients.**

Common topical ingredients	50% Dow Corning TI-7012 Solid Resin
Water	NC
Ethanol	C
<b>Esters</b>	
C12-C15 alkyl benzoate	C
Caprylic/Capric triglyceride	C
<b>Hydrocarbons</b>	
Squalane	NC
Isododecane	C
Isohexadecane	C
<b>Silicones</b>	
Dimethicone (50 cSt)	C
Cyclopentasiloxane	C
Hexamethyldisiloxane	C
Caprylyl methicone	C
Phenyltrimethicone	C

C= Compatible, NC= Non Compatible (forms 2 phases)

**Table 2: Performance of the film of Dow Corning TI-7012 Solid Resin.**

Film surface property		Film permeability	Wash off resistance on the skin
Contact angle of water (degree)	Contact angle of artificial sebum oil (degree)	Water loss (g/(m <sup>2</sup> *h))	Silicone amount remaining on skin after 3 washings (%)
113.3 +/- 4.3	44.3 +/- 1.7	86.4 +/- 0.4	72.7 +/- 10.4