

Dow Corning[®] TI-4021 Semi-Occlusive Wax

FEATURES & BENEFITS

- High melting point wax (63–71°C)
- Semi-occlusive material
- Rheology and texture modifier
- Structuring agent
- Wash-off resistance
- Broad compatibility with organic and silicone materials

COMPOSITION

- 100% silicone resin wax
- INCI name: C30-45 Alkyldimethylsilyl Polypropylsilsesquioxane

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*[®] TI-4021 Semi-Occlusive Wax is commonly used in topical formulations due to its broad compatibility with organic and silicone materials, semi-occlusive properties, and wash-off resistance. Such silicone wax is currently used in a range of dermatological consumer healthcare or medicated skin care applications including creams, lotions, gels, and sun care formulations.

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.

Property	Unit	Result
Appearance		White to off-white large flakes
Melting point	°C	63°C–71°C

DESCRIPTION

Dow Corning TI-4021 Semi-Occlusive Wax is a high melting point (63°C–71°C) silicone resin wax. It combines the physical and chemical characteristics of silicone wax with added resin character such as improved non transfer.

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

Melt the *Dow Corning* TI-4021 Semi-Occlusive Wax with the other oil phase components. In the case of emulsion products, ensure that the wax is completely melted into the oil phase by heating it to 75°C.

Ensure that the temperature of the aqueous phase is also 75°C before

adding it to the oil phase. Avoid any dramatic decrease in temperature; allow it to cool down at a slow, consistent rate until 40°C has been reached with good mixing to keep system uniform. The recommended levels are dependent on the application but can be as low as 2% for structuring an emulsion and as high as 20% for a stick application.

REGULATORY INFORMATION

Dow Corning TI-4021 Semi-Occlusive Wax 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 boxes.

Samples are available in 500 ml bottles.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. However, should you wish to use this product in a 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 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.**

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Table 1: Compatibility Data

Wt% of <i>Dow Corning</i> [®] TI-4021 Semi-Occlusive Wax	10	50	90
Material			
Ethanol	NC	NC	NC
Beeswax	C	C	C
Ozokerite Wax	C	C	C
Candellilla Wax	C	C	C
C12-15 Alkyl Benzoate	C	C	C
Caprylic/Capric	C	C	C
Triglyceride			
Octyl Dodecanol	C	C	C
Ethylhexyloxy Cinnamate	C	C	C
Sunflower oil	C	C	C
Castor oil	C	C	C
Low molecular weight, volatile silicone oils	C	C	C
Isododecane	C	C	C

C=Compatible, NC =Non Compatible