

Fluoro Silane

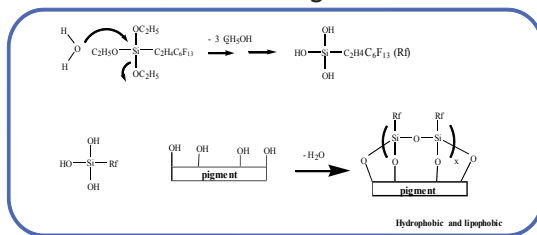
TREATMENT - FS

FS Surface Treatment

Kobo Products is pleased to offer an innovative, environmentally agreeable Fluoro Silane (FS) treatment. The FS treated pigments not only boast hydrophobic properties but are also lipophobic due to the low surface tension typically associated with fluorinated materials. These attributes can be visually shown through the “beading effect” of water and oil droplets on the surface of pressed powders and can also be measured by contact angles greater than 135 degrees. Furthermore, the Fluoro Silane is chemically bonded to the pigment surface thus providing a stable environment and restricting the treatment from being readily removed.

The Fluoro Silane treatment (.08-2%) facilitates excellent spreading and adhesion to the skin while simultaneously preventing the agglomeration of pigments into fine lines and wrinkles. The adherent properties of the

FS treated pigments contribute to the long wear of these treated pigments even in the presence of sebum and water. By repelling sebum from pigments on the skin, oil residual is reduced and the darkening shift of color is less noticeable in comparison to other treatments. Applications of FS treated materials can be found in current Kobo formulas for long wear liquid foundation, dry water foundation and pressed powder foundation. These FS treated pigments also have the potential to be used for improved water resistance and long wear in mascaras.

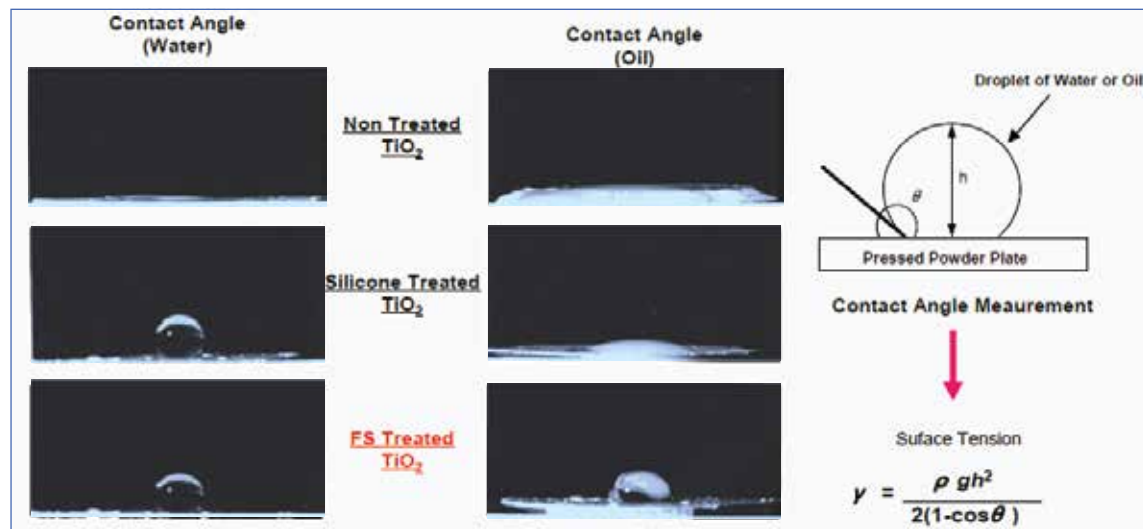


(Oil Droplet on FS Treated Pressed Powder)
FS treatment is extremely lipophobic and hydrophobic, allowing it to repel water and sebum on the skin.



Demonstration of water beading on pressed powder featuring FS Treatment.

The surface tension of water and oil respectively on an untreated, silicone treated and FS treated substrate of titanium dioxide. The third pair of images in this sequence clearly shows that FS treatment is superior to the untreated and silicone treated surfaces in its resistance to water and oil as displayed by the fairly large contact angle of both beaded liquids.



KOBO

Kobo Products, Inc.
3474 So. Clinton Ave.
So. Plainfield, NJ 07080
USA
tel +1 (908) 757-0033
fax +1 (908) 757-0905

Kobo Products, SAS
135 Rue Buissonniere
Quartier Bouysset
31670 LABEGE
France
tel +33 (0)5-62-88-77-40
fax +33 (0)5-62-88-77-49

Kobo Products Ltda..
Rua Bamboré n.41
Ipiranga - São Paulo/SP
04278-060
Brasil
tel +55 (11) 5062-0634

FS Surface Treatment

Trade Name	INCI Name	Product Type
BTD-FS	Titanium Dioxide (And) Perfluorooctyl Triethoxysilane	Pigmentary TiO ₂
RBTD-M-FS	Titanium Dioxide (And) Perfluorooctyl Triethoxysilane	Pigmentary TiO ₂
BWBO-FS	Iron Oxides (CI 77499) (And) Perfluorooctyl Triethoxysilane	Black Iron Oxide
BWRO-FS	Iron Oxides (CI 77491) (And) Perfluorooctyl Triethoxysilane	Red Iron Oxide
BWYO-FS	Iron Oxides (CI 77492) (And) Perfluorooctyl Triethoxysilane	Yellow Iron Oxide
New BEUB-FS	Ultramarines (And) Perfluorooctyl Triethoxysilane	Ultramarine Blue
New BMV-FS	Manganese Violet (And) Perfluorooctyl Triethoxysilane	Manganese Violet
GMS-FS	Mica (And) Perfluorooctyl Triethoxysilane	Sericite
MICA S-FS	Mica (And) Perfluorooctyl Triethoxysilane	Mica
MSS-500N-FS	Silica (And) Perfluorooctyl Triethoxysilane	Silica Microsphere
MST-547-FS	Polymethylsilsesquioxane (And) Perfluorooctyl Triethoxysilane	PMSQ Microsphere
SP-10-FS	Nylon-12 (And) Perfluorooctyl Triethoxysilane	Nylon Microsphere
TALC N-FS	Talc (And) Perfluorooctyl Triethoxysilane	Talc
BLUE 1AL S-FS08	Blue 1 Lake (And) Perfluorooctyl Triethoxysilane	FD&C Blue No.1 Aluminum Lake
RED 6BA S-FS08	Red 6 Lake (And) Perfluorooctyl Triethoxysilane	D&C Red No. 6 Barium Lake
RED 7CA E-FS08	Red 7 Lake (And) Perfluorooctyl Triethoxysilane	D&C Red No. 7 Calcium Lake
YELLOW 5AL-FS08	Yellow 5 Lake (And) Perfluorooctyl Triethoxysilane	FD&C Yellow No.5 Aluminum Lake
New RED 33AL-FS105	Red 33 Lake (And) Perfluorooctyl Triethoxysilane	D&C Red No.33 Aluminum Lake

Pressed Powder Featuring FS Treatment

Formula KPP-053

Part 1

- **GMS-FS** - Kobo Products:
Mica (And) Perfluorooctyl Triethoxysilane 76.78%
- **RBTD-M-FS** - Kobo Products:
Titanium Dioxide (And) Perfluorooctyl Triethoxysilane 10.00%
- **BWYO-FS** - Kobo Products:
Iron Oxides (CI 77492) (And) Perfluorooctyl Triethoxysilane 2.00%
- **BWRO-FS** - Kobo Products:
Iron Oxides (CI 77491) (And) Perfluorooctyl Triethoxysilane 0.66%
- **BWBO-FS** - Kobo Products:
Iron Oxides (CI 77499) (And) Perfluorooctyl Triethoxysilane 0.34%
- Propyl Paraben NF- International Sourcing:
Propylparaben 0.10%
- Methyl Paraben NF- International Sourcing:
Methylparaben 0.10%

Part 2

- ELEMENT14 PDMS 10-A - Momentive:
Dimethicone 7.00%
- Dow Corning 593 Fluid - Dow Corning:
Dimethicone (And) Trimethylsiloxysilicate 3.00%
- Tocopherol - Cognis Corp:
Tocopherol 0.01%
- Phenoxetol - Clariant:
Phenoxyethanol 0.01%

Manufacturing Procedure

1. Combine Part 1 in blender. Blend until color is fully developed.
2. Combine Part 2 and mix well.
3. Add Part 2 to Part 1 and blend well.
4. Press at 500 psi.

Description

This pressed powder features Kobo's Perfluorooctyl Triethoxysilane Treatment. The FS-Treated Pigments show both water and oil repellency. This helps to achieve long lasting make-up resilient to perspiration and sebum.

Kobo is a licensee of Avon US Patent: 6,315,990

Nail Enamel Applications are excluded. These products cannot be sampled or sold for Nail applications.

KOBO

www.koboproducts.com