

who offers exceptional dispersion
solutions for cosmetic applications?

we do.

working for you.



for solutions to your dispersion challenges, turn to Soft-Tex.

Sun Chemical Performance Pigments has developed Soft-Tex to address the challenges associated with preparing cosmetic pigment dispersions. Soft-Tex controls both the particle size distribution and surface charge associated with the pigments, eliminating variability and instability. When you want a finished product that is homogeneous, with high batch-to-batch consistency, try Soft-Tex.

Key attributes and benefits:

- More consistent formula control
- Lower pigment bulk density derived from uniform particle size
- Narrow particle size distribution
- Stronger resistance to agglomeration of pigment particles
- Greater color development in dry blends
- Consistent color development throughout the mixing process
- Increased efficiency in cosmetic production
- Decreased milling requirement

Soft-Tex Organics and Inorganics Regulatory Compliance

Sun Chemical's conformity status for all cosmetic pigments is based on various and active color regulations including:

In the United States in accordance with:

- U.S. Code of Federal Regulations (CFR) Title 21, parts 70-82.

In the European Union in accordance with:

- Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products, Annex IV.
- For coloring agents whose number is preceded by the letter "E", Commission Regulation (EU) No 231/2012 of 9 March 2012.

In China in accordance with:

- Technical Safety Standard for Cosmetics 2015.

In the Association of Southeast Asian Nations (ASEAN):

- The ASEAN Cosmetic Directive, Annex IV, Part 1.

In Japan in accordance with:

- Japanese Standards of Cosmetic Ingredients (JSCI), 2nd edition and supplements; Standard Codes 41 and 42.
- Japan MHLW Ordinance No. 126 of July, 2003 (Coal-Tar Colors).

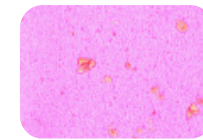
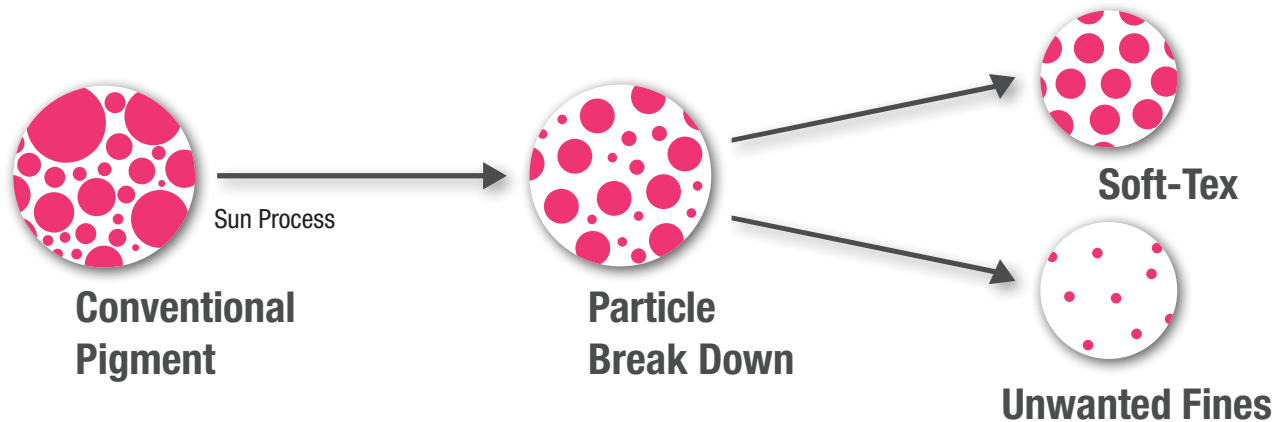
Note: Inorganic pigments are not currently regulated in Japan and are used without concentration limit in the Comprehensive Listings Standards (CLS) of Cosmetics, categories 1-11 [except C61-6735 which is not permitted in 9) Lip Preparations and 10) Oral Preparations]. Cosmetic Categories as per 9th amendment of CLS August 26, 1996: 1) Cleansing Preparations 2) Hair Preparations 3) Treatment Preparations 4) Makeup Preparations 5) Fragrant Preparations 6) Suntan/Sunscreen Preparations 7) Nail Makeup Preparations 8) Eyeliner Preparations 9) Lip Preparations 10) Oral Preparations 11) Bath Preparations. Source: Cosmetics, Toiletries, and Fragrance Association list of Japanese Cosmetic Ingredients (Fourth Edition).

In Brazil in accordance with:

- Ministry of Health, National Agency of Sanitary Surveillance Board Resolution-RDC N° 44, August 2012.

For more detailed regulatory guidelines, please reference appropriate product Technical Data Sheet (TDS) and Material Safety Data Sheet (MSDS).

uniform and narrow particle size.



Magnified 200x

**Conventional
D&C Red 27 Al Lake**



Magnified 200x

Soft-Text C14-7702

figure 1:

The unique and novel Soft-Text process stabilizes the pigments against agglomeration, ensuring ease of formulation.

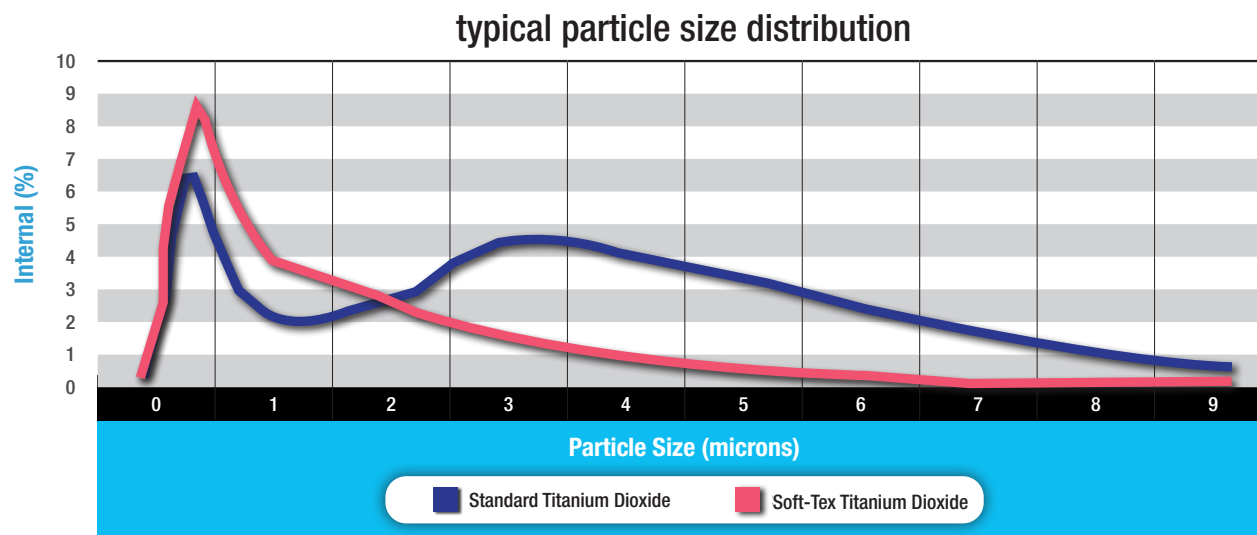


figure 3:

The narrow and uniform particle size distributions found in Soft-Text pigments aid processability in end-product applications.

figure 2:

Eliminating the aggregation and agglomeration associated with conventional cosmetic colorants allows Soft-Text pigments to develop significantly greater strength with equal or less energy.



strength development vs. traditional pigments.



figure 4:

Soft-Tex pigments display greater color strength when compared to conventional colorants. When Osterized in a talc base for one minute, Soft-Tex pigments of D&C Red 7 Calcium Lake and Iron Blue develop 94% and 162% greater strength, respectively, than their traditional counterparts. Soft-Tex pigments quickly achieve uniform color development; reducing the need for extensive milling and batch to batch variation. The color strength of the conventional pigments continues to develop over time.

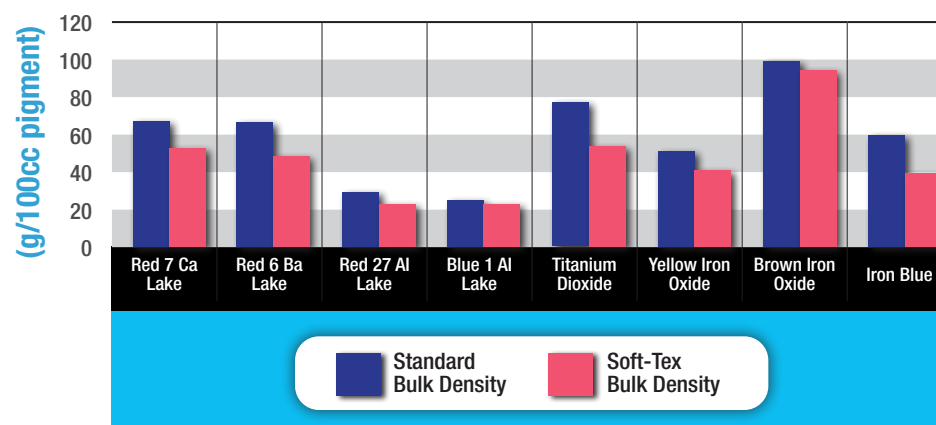
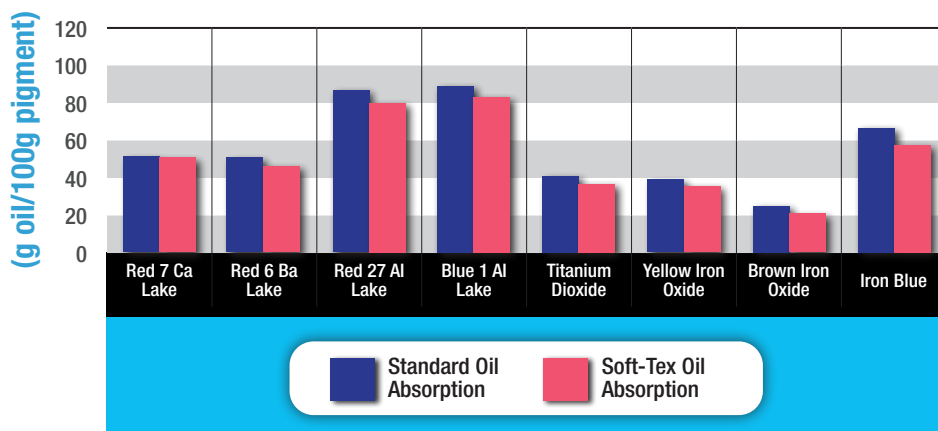


Dispersion Equipment	Conventional D&C Red 7 Ca Lake Pigment			Soft-Tex C19-7711		
	Time	Hegman	Micron	Time	Hegman	Micron
Toothed Impeller Blade	9 min	4	50	6 min	8	<5
Rotor Stator Homogenizer	13 min	4	50	5 min	8	<5
Three Roll Mill	3 passes	5	40	1 pass	8	<5

figure 5:

Irrespective of the milling method used, Soft-Tex pigments require less processing and yield higher quality grinds in oil based systems than their traditional counterparts. Soft-Tex pigments demonstrate a clear advantage in their ease of dispersion.

comparison of Soft-Tex versus standard cosmetic pigments



figures 6 and 7:

Soft-Tex pigments provide lower oil absorption and bulk density than traditional pigments, improving consistency of cosmetic preparations.

Masstone	Mid-tone	1/20 Tint	Product Code Description	Color Index Number EU / China / Brazil	Japan Name	Average % Dye	Typical Usage				Global Regulatory Restrictions	Comments
							Lipstick	Face Makeup	Nail Lacquer	Eye Makeup		
			C19-7712 D&C Red 6 Ba Lake	15850		38	M	S	M	NR	Prohibited in Japan Restricted from eye use in the U.S.	
			C19-7722 D&C Red 6 Ba Lake	15850		18	M	S	NR	NR	Prohibited in Japan Restricted from eye use in the U.S.	
			C19-7703 D&C Red 7 Ca Lake	15850	Aka202	60	M	S	M	NR	Restricted from eye use in the U.S.	Non- rosinated product
			C19-7711 D&C Red 7 Ca Lake	15850	Aka 202	39	M	S	M	NR	Restricted from eye use in the U.S.	
			C19-7720 D&C Red 7 Ca Salt	15850	Aka202	90	M	S	S	NR	Restricted from eye use in the U.S.	Non- rosinated product
			C14-7702 D&C Red 27 Al Lake	45410		16	M	NR	NR	NR	Prohibited in Japan Restricted from eye use in the U.S.	
			C14-7723 D&C Red 28 Al Lake	45410	Aka 104(1)	22	M	NR	NR	NR	Restricted from eye use in the U.S.	
			C37-7738 D&C Red 30 Al Lake	73360	Aka 226	38	M	S	NR	NR	Restricted from eye use in the U.S.	
			C24-7718 D&C Red 34 Ca Lake	15880	Aka220	78	NR	NR	M	NR	External use only in U.S. No mucous membrane contact	
			C39-7733 FD&C Blue 1 Al Lake	42090	Ao1	12	S	NR	S	S		
			C69-7724 FD&C Yellow 5 Al Lake	19140	Ki4	26	M	S	S	S		

M : Major use; S : Some use and NR : Not recommended for global formulations

Masstone	Mid-tone	1/20 Tint	Product Code Description	Color Index Number EU / China / Brazil	Japan Name	Typical Usage				Global Regulatory Restrictions	Comments
						Lipstick	Face Makeup	Nail Lacquer	Eye Makeup		
			C33-7734 Black Iron Oxide	77499	Black Oxide of Iron	S	S	S	M		Brown shade
			C33-7751 Black Iron Oxide	77499	Black Oxide of Iron	S	S	S	M		
			C33-7775 Red Iron Oxide	77491	Red Oxide of Iron	S	M	S	M		Blue shade
			C33-7738 Russet Iron Oxide	77491 77499	Red Oxide of Iron Black Oxide of Iron	S	M	S	M		
			C33-7715 Brown Iron Oxide	77491 77492 77499	Red Oxide of Iron Yellow Oxide of Iron Black Oxide of Iron	S	M	S	M		
			C33-7720 Yellow Iron Oxide	77492	Yellow Oxide of Iron	S	M	S	M		Red shade
			C33-7773 Yellow Iron Oxide	77492	Yellow Oxide of Iron	S	M	S	M		Blue shade
			C38-7710 Iron Blue	77510	Ferric Feroocyanide	NR	S	S	M	Restricted from lip user in the U.S.	
			C47-A7753 Titanium Dioxide	77891	Titanium Dioxide	S	M	NR	M		Anatase, oil dispersible

M : Major use; S : Some use and NR : Not recommended

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service

innovation

A partner who transforms with you.

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working for you.

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