



MICRO POWDERS, INC.
High Performance Wax Additives

MicroTouch

Soft Touch Additives



MODIFY YOUR TACTILE SURFACE PROPERTIES WITH MICROTOUCH.

MicroTouch additives are spherical aliphatic polyurethane particles that can be used in combination with many different types of coating resins to achieve effects that range from satiny smooth to leathery to rubbery. MicroTouch additives are highly resilient particles that will provide a matte appearance as well as superior burnish and mar resistance. Available in several particle sizes, each MicroTouch additive brings different tactile properties. MicroTouch additives are an ideal alternative to formaldehyde-based materials such as polyureas.

MicroTouch additives can improve chemical resistance and hydrolytic stability. Taber abrasion resistance can be dramatically improved with an addition of 2-3% of MicroTouch. MicroTouch additives can be used to modify coatings for plastics, metals, paper, wood, leather and other textiles.

Formulation Notes

It is important to understand that the ultimate "feel" of a coating formulated with MicroTouch is highly dependent on the choice of resin system. Harder, higher Tg resin systems formulated with MicroTouch will provide a surface with a silky, satiny feel (2-6% dosage). Softer, lower Tg resin systems can provide surfaces that have a rubbery, anti-slip feel (6 -12% dosage).

In UV coatings, a rubbery soft touch effect can be achieved by starting with a UV adhesive formula and modifying with enough MicroTouch to provide a tack-free surface above the soft, flexible cured adhesive layer.

The formulated examples presented in this brochure demonstrate some of the tactile effects that can be achieved by combining MicroTouch additives with different types of coating resins.

High Temperature and Solvent-Based Applications

MicroTouch additives are suitable for applications with curing temperatures up to 100 -120°C. For application in the 120 -140°C range, the products may show some yellowing. Applications exceeding 140°C are not recommended as the particles will swell and/or stick together.

MicroTouch additives will swell and absorb solvent if slurried directly into alcohol (ethanol, isopropanol) or other highly polar solvents. They should instead be dispersed into the alcohol-based resin system to wet and stabilize the particles. MicroTouch additives should not be used in coating systems based on dimethylformamide (DMF) as the particles will swell significantly.

Product Data

FINE ← PARTICLE SIZE → COARSE

Typical Properties	MicroTouch 850XF	MicroTouch 800XF	MicroTouch 800VF	MicroTouch 800F
Density@77°F (25°C)	1.02	1.05	1.05	1.05
Maximum Particle Size (µm)	31	31	60	120
Mean Particle Size (d50, µm)	5-9	6-9	11-15	22-30

Examples of Formulated Tactile Effects

ROSE PETAL USING MICROTOUCH 850XF

Component	Weight %	Composition	Supplier
1. Bayhydrol® UH 340/1	34.9	PUD (40 wt.% solids)	Covestro
2. Butyl Carbitol	1.2	Diethylene glycol monobutyl ether	Dow
3. Alberdingk® U 5201 (1)	52.4	PUD (40 wt.% solids)	Alberdingk-Boley
4. MicroTouch 850XF	11.5	Polymeric Additive	Micro Powders, Inc.
Total: 100.0% (Wet applied film thickness 0.003" or 76 µm)			
Add components 1 and 2 in the order listed with mixing and allow solvent to diffuse into the PUD for at least 3 hours before adding components 3 and 4 in the order listed (also with mixing).			

(1) Or Allnex Daotan® TW 6490/35WA

RUBBERY USING MICROTOUCH 800XF

Component	Weight %	Composition	Supplier
1. Bayhydrol® UH 340/1	51.9	PUD (40 wt.% solids)	Covestro
2. Butyl Carbitol	1.7	Diethylene glycol monobutyl ether	Dow
3. MicroTouch 800XF	11.5	Polymeric Additive	Micro Powders, Inc.
4. Bayhydrol® UH 240	34.6	PUD (40 wt.% solids)	Covestro
5. TEGO Foamex 805 N	0.3	Defoamer	Evonik
Total: 100.0% (Wet applied film thickness 0.003" or 76 µm)			
Add components 1 and 2 in the order listed with mixing and allow solvent to diffuse into the PUD for at least 3 hours before adding components 3, 4, and 5 in the order listed (also with mixing).			

FUZZY USING MICROTOUCH 800VF

Component	Weight %	Composition	Supplier
1. Bayhydrol® UH 340/1	34.9	PUD (40 wt.% solids)	Covestro
2. Butyl Carbitol	1.2	Diethylene glycol monobutyl ether	Dow
3. Alberdingk® U 5201 (1)	52.4	PUD (40 wt.% solids)	Alberdingk-Boley
4. MicroTouch 800VF	11.5	Polymeric Additive	Micro Powders, Inc.
Total: 100.0% (Wet applied film thickness 0.003" or 76 µm)			
Add components 1 and 2 in the order listed with mixing and allow solvent to diffuse into the PUD for at least 3 hours before adding components 3 and 4 in the order listed (also with mixing).			

(1) Or Allnex Daotan® TW 6490/35WA

PEBBLY USING MICROTOUCH 800F

Component	Weight %	Composition	Supplier
1. Bayhydrol® UH 340/1	34.9	PUD (40 wt.% solids)	Covestro
2. Butyl Carbitol	1.2	Diethylene glycol monobutyl ether	Dow
3. Alberdingk® U 5201 (1)	52.4	PUD (40 wt.% solids)	Alberdingk-Boley
4. MicroTouch 800 F	11.5	Polymeric Additive	Micro Powders, Inc.
Total: 100.0% (Wet applied film thickness 0.003" or 76 µm)			
Add components 1 and 2 in the order listed with mixing and allow solvent to diffuse into the PUD for at least 3 hours before adding components 3 and 4 in the order listed (also with mixing).			

(1) Or Allnex Daotan® TW 6490/35WA

MicroTouch

GLOSS REDUCTION DATA

	ROSE PETAL		RUBBERY		FUZZY		PEBBLY	
	Control	with MicroTouch 850XF	Control	with MicroTouch 800XF	Control	with MicroTouch 800VF	Control	with MicroTouch 800F
% Additive	0	11.5	0	11.5	0	11.5	0	11.5
Gloss 20°	39.3	0.4	42.8	0.6	39.3	0.4	39.3	0.4
Gloss 60°	72.9	4.3	71.8	7.5	72.9	3.7	72.9	4.2
Gloss 85°	88.0	10.3	92.8	18.9	88.0	3.2	88.0	1.7



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