

Make Your Hair Care Products Shine

Dow Corning® 2-2078 Fluid

Brilliant Benefits

Choose *Dow Corning*® 2-2078 Fluid for your next hair care application and create products that can claim:

- ▶ Superior, long-lasting shine that outperforms the leading benchmarks (see figures A and B)
- ▶ Straightening that smooths curly, frizzy hair
- ▶ Heat protection for hair exposed to hair dryers, curling irons and other harsh heat treatments
- ▶ Color protection from shampoo washes when used in permanent colorants
- ▶ Enhanced hair strengthening benefits to help prevent damage and breakage
- ▶ High pH stability for use in relaxers, colorants and perms

An innovative ingredient to answer consumer demands for shinier, straighter and healthier hair.

Meet the newest addition to Dow Corning's family of performance-enhancing ingredients – *Dow Corning*® 2-2078 Fluid. This amino phenyl resin is patented by Dow Corning and is designed for many hair care applications, including leave-in products (water-based and anhydrous systems), relaxers, rinse-off products, colorants and perms.

Something Different

Dow Corning® 2-2078 Fluid is a unique silicone copolymer with both amino and phenyl functionality. Its amino functionality enhances deposition and substantivity to hair – particularly damaged hair – and its phenyl functionality provides superior shine. Because it is stable in an alkaline environment, you can use it in high-pH (12-14) systems, such as lye and no-lye relaxers, perms and colorants.

FIGURE A Delivers More Shine vs. Leading Commercial Serum

Sensory Panel Testing, 0.2g treatment level, slightly bleached hair

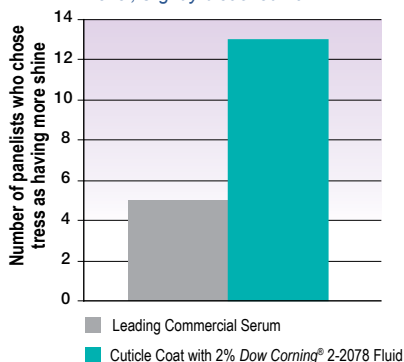
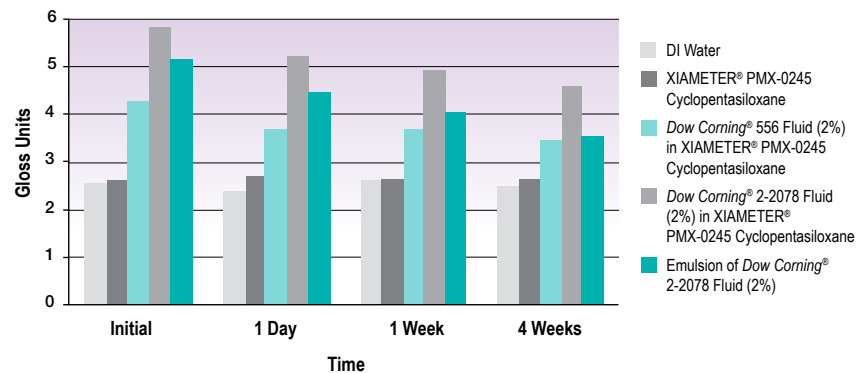


FIGURE B Superior, Long-Lasting Shine on Slightly Bleached Hair



Formulations

Dow Corning[®] 2-2078 Fluid is easy to use across many hair care applications. Below are three formulations to get you started:

Cuticle Coat for Conditioning and Shine

Formulation 00577

Ingredient	Wt.%	Trade Name/Supplier
PHASE A		
1. Cyclomethicone (and) Dimethicone	50.0	XIAMETER [®] PMX-1411 Fluid
2. Cyclopentasiloxane	45.0	XIAMETER [®] PMX-0245 Cyclopentasiloxane
PHASE B		
3. Aminopropyl Phenyl Trimethicone	2.0	<i>Dow Corning</i> [®] 2-2078 Fluid
4. Ethyl Alcohol 200 Proof	3.0	

Procedure

1. Mix ingredients of Phase A together.
2. In a separate vessel, add Phase B ingredients together and mix.
3. Add Phase A to Phase B.
4. Mix until uniform.

Leave-In Shine Cream

Formulation 00620

Ingredient	Wt.%	Trade Name/Supplier
PHASE A		
1. Lauryl PEG/PPG-18/18 Methicone	3.0	<i>Dow Corning</i> [®] 5200 Formulation Aid
2. Aminopropyl Phenyl Trimethicone	2.0	<i>Dow Corning</i> [®] 2-2078 Fluid
3. Isopropyl Myristate	2.5	Stepan IPM/Stepan Company
4. Isopropyl Palmitate	2.5	Cognis Ipp/Cognis Corporation, Care Chemicals
5. Mineral Oil	5.0	Mineral Oil/No Supplier Specified
PHASE B		
6. Deionized Water	79.4	
7. Tetrasodium EDTA	0.2	Versene 220 Crystals/ Dow Chemical Company
8. Propylene Glycol	3.0	Propylene Glycol USP/FCC/Fisher Chemical Company
9. DMDM Hydantoin	0.4	Glydant/Lonza
10. Sodium Chloride	2.0	Sodium Chloride/Fisher Scientific

Procedure

1. Mix ingredients of Phase A together.
2. In a separate vessel, add Phase B ingredients together and mix.
3. Add Phase B to Phase A very slowly using a separatory funnel while mixing Phase A very rapidly using the vessel/blade configuration described in "A Guide to Formulate Water in Silicone Emulsions, form 25-713-01" (1000 mL tall beaker, 1376 rpm).
4. Continue mixing for an additional 15 minutes.

Shine Spray with Sunscreen

Formulation 00564

Ingredient	Wt.%	Trade Name/Supplier
PHASE A		
1. Ethyl Alcohol 200 Proof	30.0	
2. Aminopropyl Phenyl Trimethicone	2.0	<i>Dow Corning</i> [®] 2-2078 Fluid
PHASE B		
3. Cyclopentasiloxane	52.5	XIAMETER [®] PMX-0245 Cyclopentasiloxane
4. Isododecane	15.0	Fanco-ID/Fanning Corporation
5. Ethylhexyl Methoxycinnamate	0.5	Parsol MCX/ DSM Nutritional Products

Procedure

1. Mix ingredients of Phase A together.
2. Mix until uniform.
3. Add Phase B ingredients in order.
4. Mix until uniform after each addition.

Two Brands to Serve You

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