



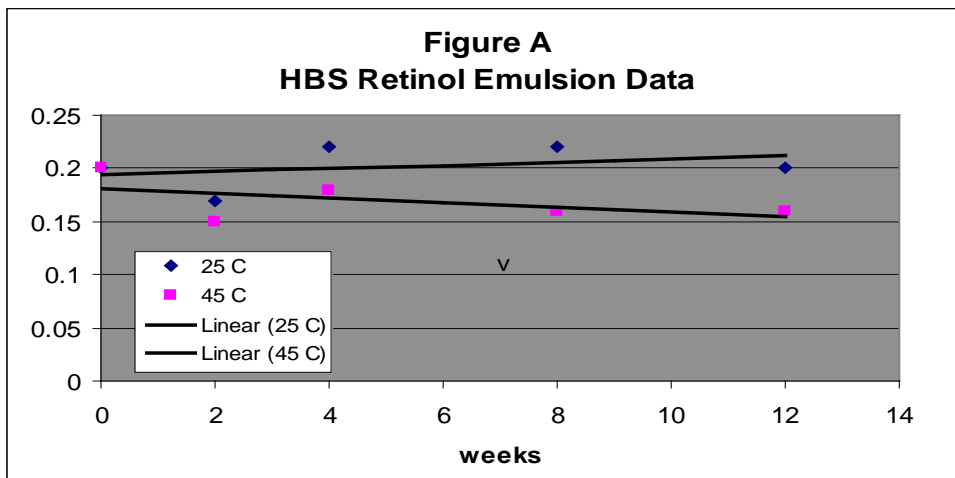
Poly-Pore 120 RE Retinol Delivery System Technical Data Sheet

Description: A multi-functional delivery system designed to improve the stability and reduce the irritation of retinol. PP120RE is an off-white, free flowing powder that can be readily dispersed in gels, emulsions, and powders, minimizing the discoloration problems common with many retinol products.

Typical Properties	
Composition:	Allyl Methacrylate Crosspolymer (and) Polysorbate 20 (and) Retinol (and) BHT
Appearance:	Off-white to pale yellow, free flowing powder
Odor:	Slight
Retinol Level:	20.5 % ± 2.0%
Loss on Drying:	< 3.0%

Stabilize and Protect

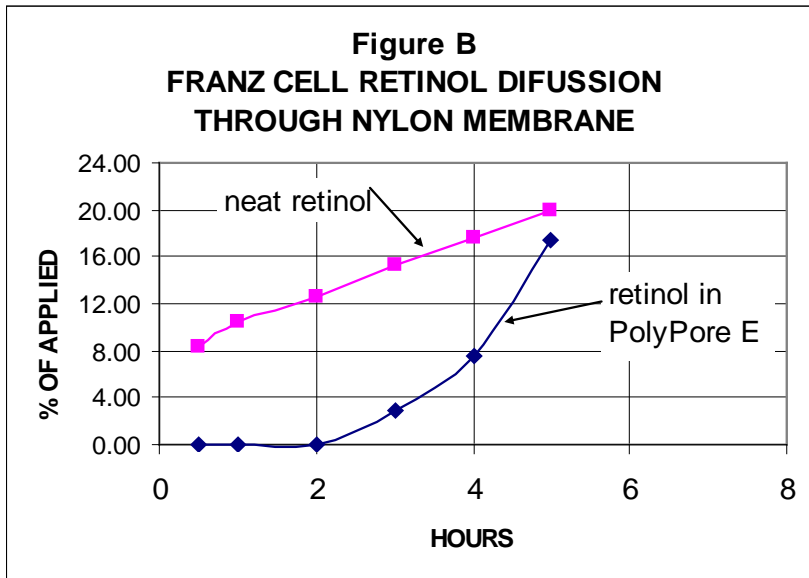
PP 120RE isolates retinol deep within the core of the Poly-Pore matrix, helping to minimize exposure to light and oxygen. It also incorporates an antioxidant system to help further protect the product from degradation, and improve the ability to formulate with the material in normal processing conditions.





Controlled Delivery of Functional Ingredients

The matrix of the Poly-Pore delivery system provides a ready "reservoir" for retinol. The release of these ingredients occurs through a combination of friction and diffusion, providing a substantially slowed release of the active. The slowing of the release of retinol enables its use at efficacious levels with minimum irritation.



Retinol Emulsion Formulation

1	A	WATER, DEIONIZED	58.12
2	A	CARBOMER (2% SOL'N)	18.81
3	A	NA2EDTA	0.12
4	B	GLYCERYL STEARATE (and) PEG-100 STEARATE	3.76
5	B	OCTYLDODECANOL	12.54
6	B	STEARETH-21	
7	B	BEHENYL ALCOHOL	2.51
8	C	TRIETHANOLAMINE 99%	0.38
9	D	PP120RE	1.00
10	E	DMDM HYDANTOIN	0.25
TOTAL			100.00

Manufacturing instructions: Combine phase A at 75C. Combine phase B at 75C. Add phase B to phase A. Add phase C. Cool to 20C and add remaining phases.

Benefits

- Significantly improves the stability of retinol, resulting in formulations that are more effective.
- Extended release results in reduced irritation and long-lasting availability at the site of action
- Provides sebum control
- Enhances emulsion stability
- Provides secondary thickening in gels and emulsions

Typical Applications

- ❖ Anti-aging and skin rejuvenation products
- ❖ Cellulite treatments
- ❖ Make-ups and Foundations incorporating skin-care benefits
- ❖ Daily use moisturizers and lotions
- ❖ Facial and body masks
- ❖ Loose and pressed powders
- ❖ Hand and body lotions

Storage Recommendations and Shelf Life: Retinol must be kept in original container under refrigerated storage until use. For best results, use the complete package after opening.

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