

HYDRO-TOPS® PENETRATION OF HYDROCORTISONE

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| Encapsulation: 0.5% ³ H-Hydrocortisone | Time: 24 hours |
| Application: 10µl/cm ² human skin | Determination: Radioactivity |

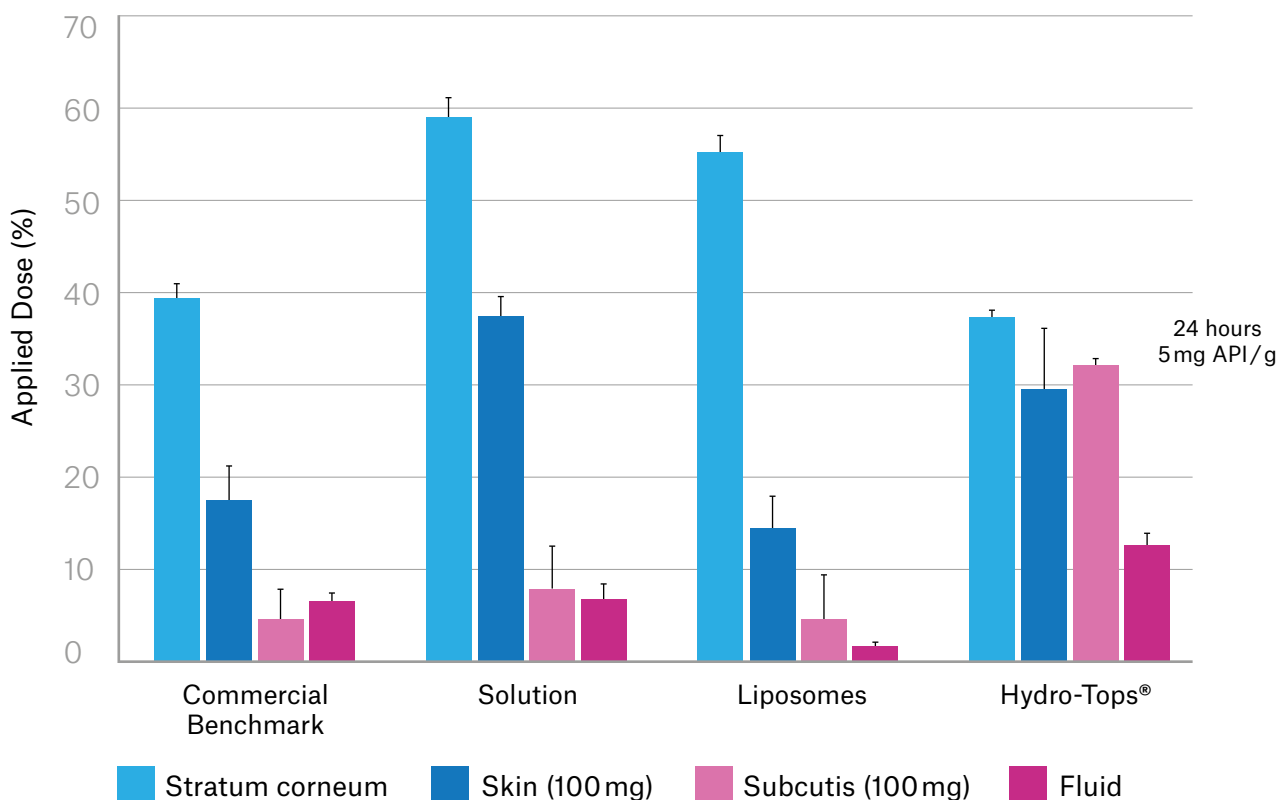
Franz Cell testing & penetration of IMWITOR® 375 based W/O/W nanoemulsion

CONCLUSION:

Highly competitive performance towards overcoming stratum corneum. Delivery and distribution of high amount of active into deep skin layers.

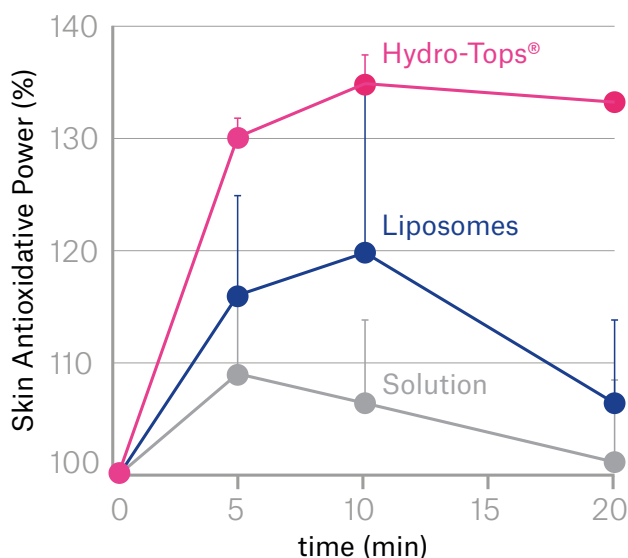
Highly efficient vehicle for deep penetration by dermal route!

Comparison of hydrocortisone formulations

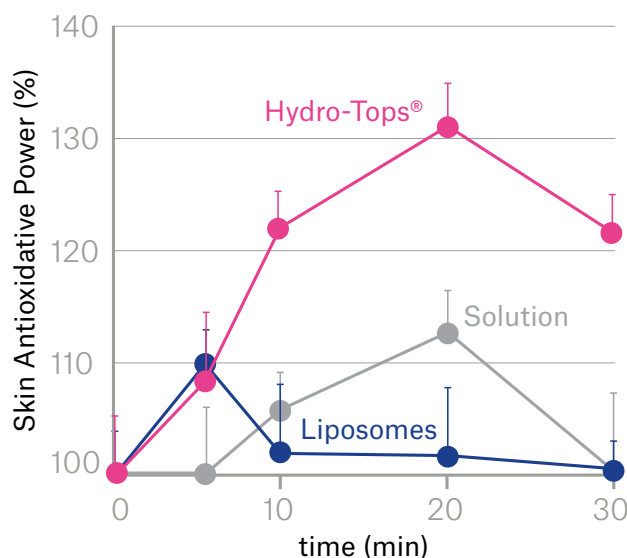


HYDRO-TOPS® ANTIOXIDANT FORMULATION LOADED INTO LAMELLAR CREAM

Skin antioxidative power of
2% dispersion of EGCG



Skin antioxidative power of lamellar
cream loaded with 0.2% EGCG



2% dispersion and 0.2% dispersion in lamellar cream of Epigallocatechin-gallate (EGCG) based on IMWITOR® 375 have been studied for their bioavailability

- **High and stable encapsulation efficacy comparable with liposomes**
- **Hydro-Tops® encapsulated active shows highest antioxidative effect in skin measured by ESR**
- **After 20 minutes radical scavenging effect of Hydro-Tops® encapsulated active found to be higher by factor of more than 2x**
- **Formulated into lamellar cream Hydro-Tops® show high antioxidative activity**

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