## 2300 Series Catalyst TIP



2300 Series was originally designed for polyethylene terephthalate (PET) bottles. This ink also adheres well to treated high density polyethylene (HDPE) and polypropylene without the need of a catalyst.

2300 Series will also adhere to low density polyethylene (LDPE), stainless steel, and glass/ceramic. For these substrates a catalyst may be needed. Catalysts are also often needed when the end function of the ink goes beyond adhesion regardless of substrate. This document is designed to outline the catalysts and adhesion promoters and their functionality available for the 2300 Series.

Only use one catalyst at a time. Combining catalyst will often counteract with each other or the ink chemistry causing undesired results. Please see the 2300 Technical Data Sheet for full disclosure on usage.

**CARE106 UV Catalyst/Charger** – ideal for use when 2300 Series is printed on plastic substrates. This catalyst causes the ink to have a harder surface when fully cured giving it more resistance to scuffing, moisture, and chemicals.

<u>Pros:</u> long pot life (8 to 12 hours). A one-time addition of CARE106 can be added to recharge the catalyst properties after the initial catalyst add has started to lose its effectiveness. Great for plastics without making the ink brittle.

<u>Cons:</u> Performance properties slowly decline over time. The ink will stay printable, but the effectiveness of the catalyst will cease without warning. Exhibits only marginal effectiveness for glass applications.

**NB23 Catalyst**- Ideal for use when chemical resistance is needed. Particularly when cleaners will come into contact with the ink for a short period of time.

Pros: Helps with adhesion to glass. Good chemical resistance for glass and plastic applications.

<u>Cons:</u> Short pot life (3 to 5 hours) with dark colors tending to have an even shorter pot life. Poor moisture resistance when soaked.

**NB26 Glass Catalyst** – Nazdar's foremost recommended catalyst for enhanced adhesion to glass. This catalyst can also be used on plastic applications when water soak is needed and stainless steel when a caustic wash is needed.

<u>Pros:</u> Enhanced adhesion to glass and stainless steel. Provides excellent moisture resistance when soaking is needed. Good pot life (4-6 hours) when using 5% or less by weight.

Cons: Shorter pot life (approximately 2.5 to 5 hours) when catalyst is added above 5% by weight.

NB27 Glass Catalyst – This catalyst performs much like the NB26, but with a longer pot life.

<u>Pros:</u> Long pot life (8-10 hours). Good adhesion and water resistance on glass.

<u>Cons:</u> Longer full cure time than NB26. Full cure properties are seen around 48 hours with NB27 (24 hours with NB26).

**NB80 UV Adhesion Promoter** – NB80 is not listed on the 2300 Technical Data Sheet as it reacts very quickly to the 2300 chemistry giving only a 1-2 hour usable pot life. This catalyst should be a last resort for customers.

<u>Pros:</u> Long standing Nazdar catalyst with a good reputation as an adhesion promoter. Works on plastic applications.

<u>Cons:</u> Short shelf life of 1-2 hours, sometimes less. No effectiveness on glass. Not recommended on the Technical Data Sheet.