



1300 SERIES

The 1300 series is a family of epoxy based inks for printing on metals, metallic coats, and glass where high adhesion power and resistance against chemicals are required. The 1300 series consists of one-pack type epoxy inks that are dried by baking. Baking may take extra work, but the one-pack system promises greater ease of work as well as outstanding film performance on curable materials.

Ink type

One-pack thermosetting ink.

Usage

Nameplates, electrical appliances, glass parts, etc. made of aluminum, zinc-plated iron, iron, or their coats.

Characteristics

Flat and glossy finish
Excellent in chemical resistance

Diluent

Standard solvent: T-1000
Slow dry solvent: T-965

Washup

T-31

Printing

Use of Tetoron or nylon screens of 200-300 mesh number is recommended.

Drying time

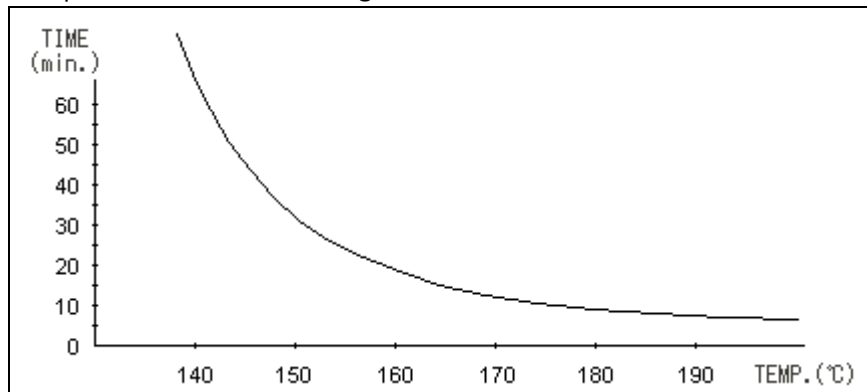
Baking at 150C : 30 minutes

Notes

1. The 1300 series require baking to produce outstanding film performance. Epoxy resin is easily affected by moisture leading to chalking, especially when used for outdoors application like signboards, direction signs, etc.
2. The 1300 series must be stored in a dark, cool place with minimum exposure to air.
3. The 1300 series contain a catalyst (to promote curing) for reduce the baking time but its effects may be weakened for some colors due to the influence of fresh air or with the passage of time. The original performance can be retained by adding 1300 catalyst H up to 1% (weight). Testing is highly recommended especially when the ink has been stored a long time.
4. The 1300 series excessively baking may result in the poor adhesion of overprinting. For multicolor printing, each color should be baked at a lower temperature than 150°C baking is recommended to promise the complete adhesion as a whole.
5. The 1300 series printed film on a glass substrate may much or less lack for water and moisture resistance as compared with what was printed on metals or coated metals.

Reference Data

Temperature and Hardening time



Printed Surface Performance Table

Test Item	Condition	Result
Hardness	Pencil hardness 45 angle, 500g load	4H
Adhesion	Peeling test on cross cut using cellophane tape	100/100
Impact Resistance	300g steel ball dropped on samples from 1m height	Not Affected
Erichsen Test	3mm diameter	Not Affected
Flex Test	2mm diameter at 180 angle	Not Affected
Water Resistance	Soaked in water for 1 month	Not Affected
Saltwater Resistance	Soaked in 5% NaCl for 1 month	Not Affected
Acid Resistance	Soaked in 5% HCl for 48 hours	Not Affected
Alkali Resistance	Soaked in 5% NaOH for 48 hours	Not Affected
Detergent Resistance	Soaked in 7% detergent for 7 days	Not Affected
Methanol Resistance	Soaked in methanol for 7 days	Not Affected
Toluene Resistance	Soaked in toluene for 7 days	Not Affected
MEK Resistance	Soaked in MEK for 7 days	Not Affected
Gasoline Resistance	Soaked in gasoline for 7 days	Not Affected

Test Conditions

Ink : 1300 120 White / 710 Black
 Material : Steel board / Tinplate board
 Screen : Tetoron 200 mesh