



Electronic



# SOLDER RESIST 31 529 XG

Code A31131523005

## PRODUCT DESCRIPTION

SOLDER RESIST epoxy two-component ink with low solvent content.  
**This ink has an excellent resistance to welding alloys of copper circuits.**

## APPLICATION FIELDS

This product is particularly indicated for protection in rigid circuits.

## APPLICATION PROCESS

<b>Substrates</b>	XXPC - CEM – FR
<b>Matrix</b>	Polyester for gold and copper 77-90 Th/cm Polyester for Sn-Pb 43-62 Th/cm
<b>Photoemulsion</b>	Solvent resistant
<b>Squeegee</b>	Square edge Squeegee hardness 60-65 shores
<b>Curing</b>	Hot air oven: 150°C during 15-20 min. Hot air oven: 130°C during 25-30 min. IR oven: 6-8 minutes Mixed oven (IR – hot air): 5-8 minutes
<b>Thinners</b>	<b>DILUENTE 90.922 NORMALE</b> (Code: A31890922001) <b>DILUENTE 90.918 LENTO</b> (Code: A31890918001)
<b>RETARDER</b>	<b>90.931 EXTRA LENTO INODORE</b> (Code A31890931001)
<b>Hardener</b>	<b>CATALYST ATOSS. X SOLDER RES.</b> (Code: A31831835001) 33% da aggiungere al SOLDER
<b>Cleaning</b>	<b>SOLVENTE LAVAGGIO LQ 90.920</b>
<b>Storage</b>	If kept in a dark place, in its original sealed package, at a temperature of 20-25°C, the product has a shelf-life of about 2 years
<b>Package</b>	5Kg
<b>Safety Data Sheet</b>	Available upon request

## GENERAL FEATURES

- Excellent resistance to welding alloys of copper circuits through "hot air levelling" procedure
- High resistance to soldering fluxes and the most aggressive solvents
- Permanent protection of the circuit in hard environmental conditions
- It doesn't alter the inflammability properties of base rolled sections
- Two-component product

## PREPARATION

Before using it, the ink has to be hardened through the incorporations of **CATALYST ATOSS. X SOLDER RES. (A31890931001)** in the following weight ratio:

- Ink 2 parts
- Hardener 1 part

We suggest In case of overdosing, we suggest to exceed with the ink rather than the hardener (e.g.: 2,5:1 rather than 1,8:1).

The hardened ink has a pot-life of about 4 - 6 hours depending on the room temperature.

This product is ready to use, but, in case that a viscosity reduction is required, it is possible to add up to 3% **DILUENTE 90.922 NORMALE** or **DILUENTE 90.918 LENTO**.

In extremely hot rooms, it is possible to add the retarder **90.931 EXTRA LENTO INODORE** (Max. 3%) to the ink.

## PRINTING

In order to realize an even and defined print, without ink lacks, it is necessary to follow the suggestions hereunder:

- turn the matrix or the squeezer at about 7°
- set the squeezer with the lowest pressure required and a low and regular feed speed
- The countersqueegee has to bring the ink back without pressing.



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## TECHNICAL FEATURES

DATA	INK	HARDENER
Viscosity (cP)	130000-180000	12.000 - 15.000
Specific weight	1,390/1,320	1,000
Flash point	60°C	60°C
Dry film thickness with polyester 43 T	30-35 µm	30-35 µm
Resistance to soldering (IPC-SM840)	> 30 secondi 260°C	-
Adhesion (DIN 53151)	100/100	-
Film hardness	6H	6H
Dielectric strength (IPC-SM840)	> 1700 V/mm	-
Insulation strength (IPC-SM840)	3,5x10 <sup>14</sup> ohm	-
Volume resistivity	3,0x10 <sup>18</sup> ohm	-
Surface resistivity	5x10 <sup>14</sup> ohm	-
Inflammability (UL 94-FR4)	94 VO	-

Resistance to fluxes and solvents:

- dichloromethane
- 1.1.1. trichloroethane
- Isopropyl alcohol
- Aliphatic/aromatic hydrocarbons and ketones
- Halogenated hydrocarbons
- Rosin-based fluxes and carboxylic acid based fluxes

## SPECIAL INSTRUCTIONS

- Always test the characteristics of the product, before starting production.
- The above information is the result of previous knowledge and experience; it is neither a guarantee nor an assurance.
- It is recommended not to exceed with the hardener quantity.
- Once hardened, the ink has a pot-life of about 4-6 hours, so it is suggested to prepare the quantity of ink, which is necessary to the everyday printing.

## IMPORTANT NOTE

The information given in this technical sheet is not intended to be exhaustive and any person, using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us to the suitability of the product for the intended purpose, does so at his own risk.

While we endeavour to ensure that all advice we give about the product is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product.

Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising out of the use of the product.

The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.