



SINTERING

ECOREL™ SINTEC XP95D

PRESSURE-LESS AG SINTERING PASTE
DISPENSING APPLICATION
FOR DIE ATTACH

BENEFITS

ECOREL SINTEC XP95D is a pressure-less sintering paste, designed for die-attach and applied by dispensing. As no pressure is required during sintering, standard reflow oven equipment can be used.

It ensures optimal wetting on different DCB and AMB surface finish (Cu, Au, Ag) and is compatible with the temperature requirement mission profiles of wide band gap material SiC and GaN.

Based on Nano-Join technology, ECOREL SINTEC XP95D exhibits superior levels of thermal conductivity and shear strength. Typical applications are found in the field of high-power die-attach, RF devices and power-LED.

Our sintering pastes does not contain halogen nor nanoparticles and can be stored at room temperature without affecting the workability.

PERFORMANCE	<ul style="list-style-type: none"> High thermal conductivity to offer great heat dissipation Higher silver content without agglomeration risk High reproducibility and stability for dispensing Very good wetting on all surface finishes High shear strength for improved reliability 100% silver content post-sintering TCT -55°C-+ 125°C >1000 cycles
COST	<ul style="list-style-type: none"> Can be used in standard reflow oven equipment More than 10h work-life with very stable dispensing performance. Room temperature storage
HSE	<ul style="list-style-type: none"> Lead free No CMR containing substances No halogen No nanoparticles REACH & RoHS compliant

CHARACTERISTICS

CHARACTERISTICS	ECOREL SINTEC XP95D
Metal	Ag + binders
Sintering temperature	Typically 250°C
Silver content after sintering	100%

PERFORMANCE

PERFORMANCE	ECOREL SINTEC XP95D
Shear strength	~60 MPa
Heat conductivity	>300 W/mK
Electric conductivity	~40 MS/m

PROCESS RECOMMENDATION

The best process will depend on factors such as operating conditions, equipment, board or component design. Our team is ready to advise you.

PRESSURE-LESS SINTERING PROCESS OUTLINE



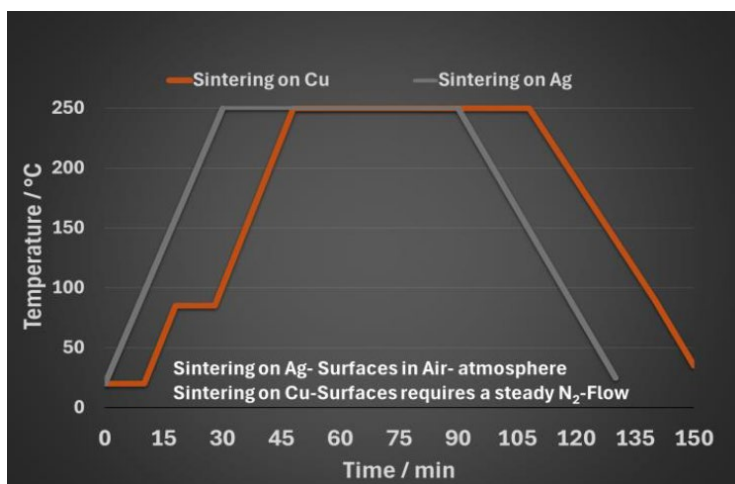
DISPENSING GUIDELINE

PARAMETER	RECOMMENDED VALUE
Needle diameter	0,33 mm
Speed	5 mm/sec
Pressure	1 to 2,5 bar

PLACEMENT AND SINTERING GUIDELINE

- Sintering in standard reflow oven under Air, N₂ Other process equipment is possible without use of vacuum
- Sintering profile depends on thermal mass
- If holding time is further increased, temperature can be reduced to 220°C

PARAMETER	REMARKS
Die placement force	0,01–0,05 MPa per die for 1 seconds
Sintering profile Copper	<ul style="list-style-type: none"> ▪ Nitrogen atmosphere recommended ▪ At room temperature ~10min holding time, depending on oven performance ▪ Room temperature to 85°C with 8°C/min – 10min holding time ▪ Heat up to 250°C with 8°C/min – 30-60min holding time ▪ Moderate cooling down
Sintering profile Silver & Gold	<ul style="list-style-type: none"> ▪ From room temperature to 250°C with 8°C/min – 30-60min holding time ▪ Moderate cooling down



CLEANING

When cleaning is desired or required before sintering, Inventec has a broad range of own formulated cleaners.

*Inventec has over 60 years' experience in high-tech cleaning for aqueous and solvent based systems.
Our solder materials are aligned with our cleaning solutions, which guarantees excellent cleaning.*

PACKAGING, STORAGE & SHELF LIFE

- To ensure the best product performance, the recommended storage is at room temperature (25°C) in a dry environment.
- Prevent the paste to be exposed to light when stored.
- Shelf-life is 6 months for syringes. When the packaging is opened, there is no effect on shelf-life.

AVAILABLE PACKAGING



SYRINGE
10/30/100g

HEALTH, SAFETY & ENVIRONMENT

No issues when used as recommended.

In accordance with the Annex II of Directive 2011/65/UE (RoHS), including its amendments, we certify that this product does not contains quantities above 0.1% of Hg, Pb, Cr VI, PBB, PBDE, DEHP, BBP, DBP, DIBP and above 0.01% of Cd. INVENTEC PERFORMANCE CHEMICALS also fulfils its direct obligations under the REACH and Conflict Mineral regulations.

Please refer always to the Safety Data Sheet (SDS or MSDS) prior to use. Our SDS can be downloaded at www.quickfds.com. We will request to provide your email address, so we can automatically send you a new version of the SDS when a future update would occur.

TECHNICAL SUPPORT

Inventec has a worldwide dedicated Technical Support team to help you along the various stages of our cooperation.

Depending on your request, we provide online or onsite support

- to select the right product based on your specific needs.
- to assist you in your product qualification process.
- to guide you with the initial set up of your process at all your worldwide manufacturing facilities.
- to provide fast response on technical issues which could occur at any time during mass production.

When prior cleaning is required, customers are also welcome in our CLEANING CENTERS to see the process in action and to get convinced by our solutions. We cover water and solvent based processes.

Inventec is unique in the world by developing not only soldering materials but also cleaning and coating solutions. These materials are very closely linked with each other from a process point of view. Talking to our Technical Team, who understands very well these 3 different product groups, will help you greatly to overcome technical challenges within your overall process.

Contact our technical support via contact@inventec.dehon.com or your local sales representative.

ABOUT INVENTEC

Inventec is a global provider of SOLDERING, CLEANING, COATING, COOLING materials for Electronic, Semiconductor and Industrial applications. For over 60 years we have shown leadership in innovation by putting HEALTH IMPACT, SUSTAINABILITY and RELIABILITY at the core of our product development.

With ISO 9001 & 14001 production sites in France, Switzerland, USA, Mexico, Malaysia and China we can guarantee a smooth and cost-effective supply chain.

We supply to many industries but the excellent performance of our products in applications which demand high reliability, leads us to focus especially on the AUTOMOTIVE, AEROSPACE, SEMICONDUCTOR, ENERGY and MEDICAL industry.

www.inventec.dehon.com



SOLDERING
CLEANING
COATING
COOLING

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will INVENTEC PERFORMANCE CHEMICALS be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

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