INVENTEC
PERFORMANCE CHEMICALS
INSPIRING INNOVATION

ECOREL™ SINTEC

Next generation sintering solutions

APPLICATION FIELD

Sintering solutions are used as an alternative to solder paste in applications where high thermal and electrical conductivity, reliability, and mechanical strength are critical.

Some key areas where sintering is preferred include lead free die-attach, large area module attach, E-Vehicle, Energy conversion of Renewable energies, Optoelectronics and RF power devices.

Especially with the latest SiC and GaN developments operating at much higher power, using sintering interconnections with higher thermal and excellent electrical conductivity is crucial.

ADDITIONAL ADVANTAGES

- Processing with established equipment
- Highly reproducible and reliable
- Low electrical resistivity (3 µΩ.cm)
- No CMR containing substances, no halogen and no nanoparticles
- RoHS compliant
- Ten-fold improvement of Power-module lifetime
- Worldwide product availibilty & technical support

KEY FEATURES

1 High thermal conductivity

ECOREL™ SINTEC sintering solutions achieve thermal conductivity values exceeding 300 W/mK, providing exceptional heat dissipation and making them an ideal choice for high-power applications.

2 High shear strength

With a shear strength exceeding 50 MPa, robust interconnects are formed, enabling assemblies to easily withstand Thermal Cycling Testing (TCT) from -55°C to +125°C for over 1000 cycles.

3 Room temperature storage

Most sintering pastes require refrigerated or frozen storage, but our sintering solutions can be stored at room temperature, making them much easier to handle, while still providing a 6 months shelf life.

4 No nanoparticles

Unlike other sintering solutions available on the market, ECOREL™ SINTEC products are free of nanoparticles, making them safer for both users and the environment.

GET IN TOUCH

Inventec Perfomance Chemicals HQ

26, Rue des coulons,
94363 Bry sur Marne (Paris), France

Subsidiaries:
Spain, Switzerland, Germany, Hungary
China,Malaysia, Japan, Taiwan
USA, Mexico

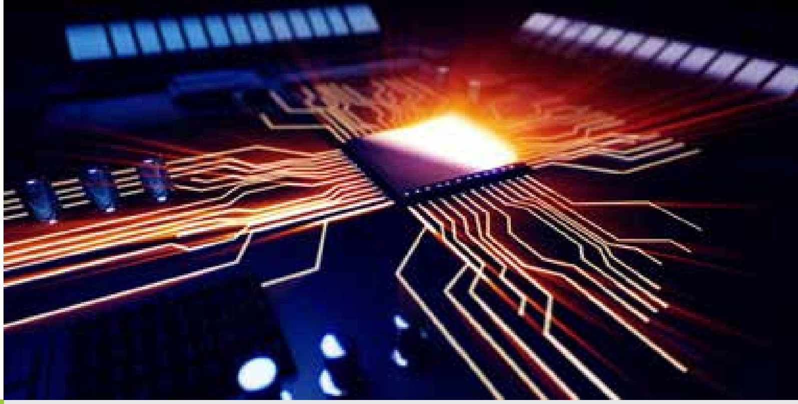
www.inventec.dehon.com

contact@inventec.dehon.com

+33 (0)1 43 98 75 00

WEBSITE

The future of electronic assembly, overcoming today's limits



ALL-IN-ONE SINTERING PROCESS

Die sintering & Substrate sintering in one step

The All-in-One sintering process has the potential to reduce the total cost of ownership for such applications dramatically. Ideally, an usually two-step process, die sintering and substrate sintering, can become a one step process: saving energy, consumables, and time by 50%.

ECOREL™ SINTEC AP90 shows a great flexibility from small to large surface areas but also for material stacks which are prone to warpage during sintering and stress test.

ECOREL™ SINTEC

PRODUCT RANGE

PRESSURE	**PRINTING**	**ECOREL™ SINTEC AP90**
	FLAT BED DISPENSING	**ECOREL™ SINTEC AP90D**

PROCESS FEATURES

- Suitable for die and module attach
- Compatible with Si, SiC & GaN die sintering
- Base plates of >3000mm^2 possible
- Low pressure sintering possible
- All-in-one sintering possible
- Very good wetting on Cu, Au, Ag, Ni

PRESSURELESS	**PRINTING**	**ECOREL™ SINTEC XP95**
	DISPENSING	**ECOREL™ SINTEC XP95D**

PROCESS FEATURES

- Suitable for die attach & optoelectronics
- Die size of max 8x8mm possible
- Used in standard oven equipment
- Very good wetting on Cu, Au, Ag, Ni

BASED ON nano-join TECHNOLOGIES

JAN 2025

INVENTEC
PERFORMANCE CHEMICALS

Materials made for high reliability & sustainability

SOLDERING • CLEANING • COATING • COOLING