

Supply Chain Explorer

By the Emerging Technology Observatory

This is an export from the ETO Supply Chain Explorer, available at: <https://chipexplorer.eto.tech> You can see the web version of this content at <https://chipexplorer.eto.tech/?filter-choose=input-resource&input-resource=N100>.

Packaging materials

Semiconductor packaging involves several steps to bond a fabricated chip to an encasing package, each requiring different materials. For example, a bond wire, typically made of aluminum, copper, silver, or gold, attaches the chip to a lead frame. The lead frame transfers data between the chip and external devices. A protective ceramic package, plastic substrate, or encapsulant resin can also be bonded to the chip. Die attach materials including polymers and eutectic alloys are used to attach the chip to packages or substrates.

Supplier countries

- China (mainland)
- Germany
- Japan
- South Korea
- Taiwan
- United Kingdom
- United States

Variants

- Lead frames
- Bond wires
- Ceramic packages
- Substrates
- Encapsulation resins
- Die attach materials

Supplier countries (Variants)

- China (mainland)
- Germany
- Japan
- Singapore
- South Korea
- Taiwan
- United States

Notable supplier companies (Variants)

- AKM - China (mainland)
- ASM Pacific - China (mainland)
- Alent - United Kingdom
- Amkor - United States
- BASF - Germany
- Darbond - China (mainland)
- Doublink - China (mainland)
- HHCK - China (mainland)

- Henkel - Germany
- Heraeus - Germany
- Hitachi - Japan
- Hysol Huawei - China (mainland)
- Ibiden - Japan
- Kangqiang - China (mainland)
- Kyocera - Japan
- LG - South Korea
- Mitsui High-Tec - Japan
- NGK - Japan
- NanYa - Taiwan
- Ningbo Hualong - China (mainland)
- Nippon Micro - Japan
- QP Technologies - United States
- SH Material - Japan
- Samsung - South Korea
- Shennan Circuits - China (mainland)
- Shinko - Japan
- Sinopaco - China (mainland)
- Sumitomo - Japan
- Tanaka - Japan
- Tanaka Denshi - Japan
- Toray - Japan
- Trinity Tech - China (mainland)
- YesDo - China (mainland)
- Yixing - China (mainland)
- Yongzhi - China (mainland)
- Zhongwei - China (mainland)
- Zhuhai Yueya - China (mainland)