

Title (en)  
DIE-ATTACH COMPOSITIONS

Title (de)  
WÜRFELBEFESTIGUNGSZUSAMMENSETZUNG

Title (fr)  
COMPOSITIONS DE FIXATION SUR DES PUCES ELECTRONIQUES

Publication  
**EP 0686170 A4 19970528 (EN)**

Application  
**EP 94912153 A 19940223**

Priority  

- US 9401776 W 19940223
- US 2359593 A 19930226
- US 2396293 A 19930226
- US 15766593 A 19931123

Abstract (en)  
[origin: WO9419402A2] In accordance with the present invention, there is provided a novel composition for attaching a semiconductor device to a substrate. The invention composition comprises liquid polycyanate ester monomer vehicle, electrically conductive filler, and a curing catalyst, preferably in the substantial absence of alkylphenol. The recognition that attach paste compositions are effective without the addition of alkylphenol has the benefit of reducing the cost of preparation, as well as the ease of preparation of die-attach pastes containing electrically conductive filler and polycyanate ester monomer. The incorporation of alkylphenol into die-attach paste compositions has been found to be unnecessary, due to the presence of catalytically active species on the surface of filler flake employed in the preparation of such pastes. Indeed, it is desirable to eliminate alkylphenols from die-attach paste compositions because alkylphenols are acidic species that do not become incorporated into the final polymerized matrix of the cured attach paste. These acidic species can thus leach out, leaving voids in the cured composition and causing corrosion of sensitive electronic parts which come in contact therewith. Optional treatment of filler to render it free of catalytically active metal ions significantly extends the pot life of the composition.

IPC 1-7  
**C08K 3/08**; **C08G 73/00**; **H01B 1/02**

IPC 8 full level  
**C08G 73/06** (2006.01); **C08K 3/08** (2006.01); **C08L 79/04** (2006.01); **C09J 179/00** (2006.01); **C09J 179/08** (2006.01); **H01B 1/20** (2006.01); **H01B 1/22** (2006.01)

CPC (source: EP)  
**C08G 73/0655** (2013.01); **C08K 3/08** (2013.01); **H01B 1/22** (2013.01)

Citation (search report)  

- [X] EP 0144741 A1 19850619 - ATSUGI RES INST [JP]
- See references of WO 9419402A2

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB IE IT LI LU NL PT SE

DOCDB simple family (publication)  
**WO 9419402 A2 19940901**; **WO 9419402 A3 19941013**; AU 6441794 A 19940914; EP 0686170 A1 19951213; EP 0686170 A4 19970528; JP H08510482 A 19961105; SG 42790 A1 19971017

DOCDB simple family (application)  
**US 9401776 W 19940223**; AU 6441794 A 19940223; EP 94912153 A 19940223; JP 51917294 A 19940223; SG 1995001686 A 19940223