

특징 및 이점

- 탁월한 접착 강도
- 탁월한 내 진동성
- 쉬운 사용 - 혼합 필요 없음
- 높은 전단 강도 및 박리 강도
- 우수한 충격 강도
- 고온 내열성
- 우수한 내화학성

설명

PERMABOND® ES558은 열경화 하는 동안 솔더와 같이 흐름성이 있는 1액형 에폭시 페이스트입니다. 박리 강도, 전단강도 및 내 충격성 최대화를 위해 강화된 접착제입니다. ES558은 금속, 페라이트, 세라믹 및 복합재를 포함한 다양한 재료 접착에 이상적입니다.

미경화 접착제의 물리적 특성

화학 조성	에폭시 레진
외관(색상)	은회색
점도 @ 25°C	100,000 ~ 300,000 mPa.s (cP)
비중	1.5

대표적인 경화 특성

고온에서 유동	자유 흐름
최대 갭필	0.5 mm 0.02 in
경화 속도 (오븐) *	130°C (266°F): 75 분 150°C (300°F): 60 분 170°C (338°F): 40 분
경화 속도 (인덕션)	<3 분

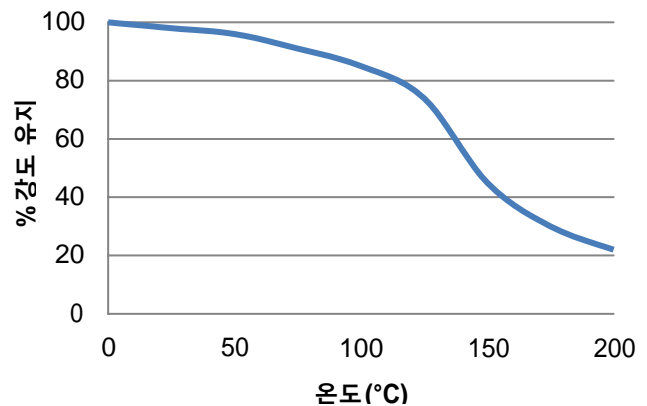
* 실제 경화 시간은 접착제가 해당 온도에 도달하는 시간에 따라 달라집니다. - 예) 큰 조립체 또는 팽창 오븐 공간의 경우 완전 경화에 더 오랜 시간이 필요하지만, 인덕션, 핫플레이트, 적외선 램프 및 핫-에어 건은 경화시간을 단축시킵니다.

경화된 접착제의 대표적인 성능

전단 강도* (ISO4587)	Steel 27 - 41 N/mm² (4000 - 6000 psi) Aluminium 17 - 31 N/mm² (2500 - 4500 psi) Zinc 14 - 27 N/mm² (2000 - 4000 psi)
철/페라이트 전단 강도	>14 N/mm² (>2000 psi) Substrate failure
충격 강도 (ASTM D-950)	25-35 KJ/m²
경도 (ISO868)	80-85 Shore D
E-modulus	3.5 GPa
파단시 연신율 (DIN 53504)	<3%
열팽창 계수	45 x 10⁻⁶ mm/mm/°C (below Tg) 160 x 10⁻⁶ mm/mm/°C (above Tg)
열전도도	0.55 W/(m.K)
유리 전이 온도 (Tg - DSC)	120°C (250°F)

* 강도 결과는 표면처리 및 겹 수준에 따라 달라질 수 있습니다.

고온 강도

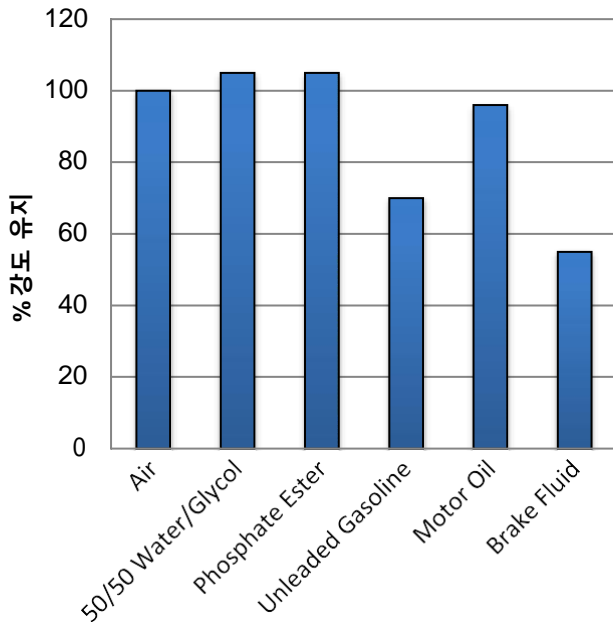


"Hot strength" shear strength tests performed on mild steel. Fully cured then conditioned to pull temperature for 30 minutes before testing. ES558 can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -40°C (-40°F) depending on the materials being bonded.

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

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내 화학성



Specimens were immersed for 30 days at 85°C and tested at room temperature.

표면 처리

접착제를 도포하기 전, 표면은 깨끗하고 건조하며 기름기가 없어야 합니다. 표면 탈지처리를 위해 아세톤 또는 이소프로판올(IPA)과 같은 적절한 솔벤트를 사용합니다. 알루미늄, 구리 및 그 합금과 같은 일부 금속은 산화물 층을 제거하기 위해 사포로 가볍게 처리하면 좋습니다.

사용 방법

- 1) The adhesive should be dispensed from the cartridge via the nozzle supplied (this can be cut to give the appropriate sized bead to cover the bond area).
- 2) Apply the adhesive to one surface and avoid entrapping air.
- 3) Assemble parts applying sufficient pressure to ensure the adhesive spreads to cover the entire bond area.
- 4) Use a jig / clamp to prevent parts moving during cure.
- 5) It is advisable not to disturb the joint until the adhesive is fully cured.
- 6) Cure with heat – see page one for cure schedule.

추가 정보

제품은 강한 산화물질과 접촉하지 않도록 합니다.

물질의 안전 취급에 관한 정보는 물질 안전 보건 자료(MSDS)에서 얻을 수 있습니다.

사용자는 무해한 것이든 아니든 모든 산업 자재가 산업 위생의 원칙에 따라 취급되어야 함을 상기합니다

기술자료(TDS)는 제품 가이드라인 정보를 제공하며 구체적인 사양을 결정짓는 것은 아닙니다

보관 및 취급

보관 온도	2 ~ 7°C (35 ~ 45°F)
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비디오 링크

표면 처리:

<https://youtu.be/8CMOMP7hXjU>

1액형 에폭시 사용 방법:

<https://youtu.be/KupaieuuZw>



www.permabond.com

• UK: 0800 9759800

• General Enquiries: +44 (0)1962 711661

• US: 732-868-1372

• KOREA: 02 6464 9977

Sales@inlcompany.com

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