

Munitions Adhesives



Permabond[®]
Engineering Adhesives

www.permabond.com

Adhesives for Munitions

Permabond is a world leader in adhesive and sealant technologies, offering a range of products for the munitions manufacturing industry. Permabond has a wealth of experience in providing custom formulations to suit specific munitions customer requirements.



Application: Crimp sealing

Permabond dual cure anaerobic UV adhesives for blank ammunition sealing.

- Sealant can be produced in a variety of colours for identification
- Viscosity can be matched to crimp design
- Friable polymer for rapid disintegration when fired
- Rapid curing - ideal for high speed production lines

Adhesive used: Permabond UV7132

Application: Primer sealing

Permabond dual cure anaerobic UV adhesives for primer sealing

- Different colours can be produced for identification purposes
- Low viscosity for easy post assembly application
- Compatible with lead free primers
- Rapid curing - ideal for high speed production lines

Adhesive used: Permabond UV7128



Benefits of Permabond anaerobic sealants:

- Better joint coverage for improving sealing consistency
- Low viscosity for easy application after the bullet has been inserted
- UV fluorescent for inspection identification
- Reduced trajectory deflection

Adhesive used: Permabond anaerobic A1024



Also available for the same application but offering additional UV cure is **Permabond A1062**

Benefits of Permabond dual cure anaerobic-UV sealants:

- Easy to dispense
- Instant seal
- Low viscosity for penetration between bullet and casing
- Cures anaerobically between bullet and casing
- Meniscus or 'fillet' can be cured with UV light - this gives additional durability and extra protection against moisture
- Fluoresces under UV black light for inspection purposes



Product Selector

If you can't see the exact product you are looking for, or need more in depth technical information, Permabond's technical team are more than happy to help. Permabond offers free custom development of sealants to suit your precise munitions project requirements. Please contact us to discuss.

Product & Features	Typical application	Cure method	Viscosity (mPa.s) cP	Handling time (copper)	Colour	UV fluorescence
Permabond A1024 Low viscosity wicking anaerobic sealant. Ideal for bonding post assembly. Great environmental resistance.	Sealing between bullet and casing	Anaerobic cure	20 mPa.s	<5 minutes	Yellow	Yes
Permabond A1062 Dual cure bullet sealant. Secondary UV cure allows the curing of the excess meniscus around the top of the casing providing improved durability & a visible seal. Great environmental resistance.	Sealing between bullet and casing	Anaerobic / UV cure	20 mPa.s	<5 minutes	Green	Yes
Permabond UV7128 Dual cure with a high shear strength. This product contains no solvents while having excellent environmental resistance.	Primer sealing	Anaerobic / UV cure	60 mPa.s	30 mins - Anaerobic <10 seconds - UV	Red	Yes
Permabond UV7130 Dual cure with a high shear strength. This product contains no solvents while having excellent environmental resistance.	Primer sealing	Anaerobic / UV cure	60 mPa.s	30 mins - Anaerobic <10 seconds - UV	Green	Yes
Permabond UV7132 Rapid, dual cure, with high shear strength. This product is also friable, so will disintegrate when fired.	Blank ammunition crimp sealing	Anaerobic / UV cure	2400 mPa.s	30 mins - Anaerobic <10 seconds - UV	Red	Yes
Permabond UV7134 Rapid, dual cure, with high shear strength. This product is also friable, so will disintegrate when fired.	Blank ammunition crimp sealing	Anaerobic / UV cure	2400 mPa.s	30 mins - Anaerobic <10 seconds - UV	Green	Yes

Permabond low viscosity anaerobic adhesive is patented technology for bullet sealing, offering a wealth of benefits over traditional methods of sealing (such as lacquer and bitumen-based compounds).

Benefits over lacquer:

- Solvent free - no emissions or waste, non-flammable, 100% reactive
- Single component - no mixing or pot-life
- Controlled viscosity which can be matched to application
- No creep, shrinkage or cracking
- Excellent protection against moisture ingress

Benefits over bitumen-based sealants:

- No heat-cure required
- No drying out or cracking
- Low viscosity for easy in-line dispensing
- Rapid cure
- Built in UV fluorescence enables easy inspection

Permabond capabilities for munitions applications include:

- Patented bullet sealing technology
- Several cure methods to choose from to suit your production line.
- Bespoke product development for crimp sealing blank ammunition.
 - Bespoke product development for primer sealing
- Technology for large calibre munition and landmines



Adhesives for • Design • Manufacturing • Assembly • Maintenance • Repair & Overhaul

Permabond's history of developing and manufacturing engineering adhesives began in the 1960's and now spreads over three continents. Today, Permabond Engineering Adhesives Ltd (Europe & Asia) and Permabond LLC (Americas) provide technological solutions to engineers all over the world, with offices and facilities in America, Asia and Europe, backed by a high-tech **ISO 9001** certified production plant in Europe.



- **Technical** – Our chemists and technicians are available to provide application assistance, custom formulation, in-house prototype testing, joint product development programs and much more.

- **Training** – Permabond's knowledgeable sales group will provide your staff with the information they need to maximize the efficiencies, cost savings, and safety benefits Permabond products generate.

- **Sales** – From preliminary project appraisals and product needs assessments through to process reliability analysis, Permabond's knowledgeable sales group will support you from product concept through to production.

The information given and the recommendations made herein are based on our experience and are believed to be accurate. No guarantee as to, or responsibility for, their accuracy can be given or accepted, however, and no statement herein is to be treated as a representation or warranty. In every case we urge and recommend that purchasers, before using any product, make their own tests to determine, to their own satisfaction, its suitability for their particular purposes under their own operating conditions. Always refer to current product technical datasheet for most recent and accurate technical information.

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