

## ADHESIVES & SEALANTS FOR FILTERS

Permabond's line of adhesives and sealants offers the performance characteristics needed to bond and seal the many different substrates used in filter manufacturing.

**Anaerobic adhesive** sealants for rolled seams and crimp sealing.

**Cyanoacrylate adhesives** quickly form spliced gaskets and bond gaskets to end caps.

**Single part epoxies** are a cost effective alternative to welding metal filter components. The added benefit of a complete seal is a result of potting components.

**Two component epoxies** which are low viscosity are ideal for potting pleated filter media and have excellent resistance to water, fuel, etc. The low exotherm temperature makes them suitable for bulk volume potting applications.

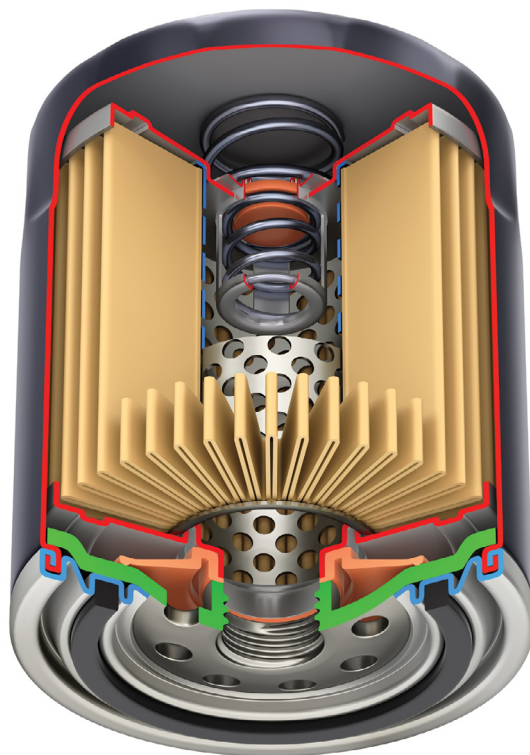
**Polyurethanes** for potting media.

**Structural acrylics** offer high speed, durable bonding.

### TYPICAL APPLICATIONS:

- ▶ Crimping Seals
- ▶ Sealing Disc Shaped Filters
- ▶ Sealing Rolled Seams to the Base Plate
- ▶ Bonding Filter Assembly to the End Plate
- ▶ Bonding Rubber Gaskets to the Base Plate
- ▶ Potting Filter Media into the Base Plate

Some of these products are highlighted in the tables that follow. If you do not see the product you require, contact Permabond for a recommendation or custom formulation for your unique application.



# Gasket Splicing and Bonding CYANOACRYLATES

| Product                                                                                          | Flexibility | Viscosity<br>cP | Fixture<br>Time | Temp.<br>range<br>(°C) °F    |
|--------------------------------------------------------------------------------------------------|-------------|-----------------|-----------------|------------------------------|
| <b>Permabond 105</b><br>Elastomer bonding for gasket bonding or forming rubber gaskets.          | Low         | 40              | <15 sec         | (-55 to +82)<br>-65 to +180  |
| <b>Permabond 731</b><br>Toughened cyanoacrylate for high durability.                             | Toughened   | 150             | <30 sec         | (-55 to +120)<br>-65 to +250 |
| <b>Permabond 792</b><br>Surface insensitive very fast curing with higher temperature resistance. | Low         | 90              | <3 sec          | (-55 to +120)<br>-65 to +250 |
| <b>Permabond 825 Patented</b><br>High temperature resistance.                                    | Low         | 125             | <20 sec         | (-55 to +200)<br>-65 to +390 |
| <b>Permabond 910®</b><br>The original methyl, metal bonding cyanoacrylate.                       | Low         | 80              | <15 sec         | (-55 to +90)<br>-65 to +195  |
| <b>Permabond 2011</b><br>Rapid curing high viscosity gel cyanoacrylate.                          | Low         | Gel             | <10 sec         | (-55 to +120)<br>-65 to +250 |



Gaskets are created by bonding two spliced ends of rubber together with Permabond cyanoacrylates. These gaskets or preformed gaskets are bonded to the end caps of heavy duty truck air filters and industrial element return filters with Permabond cyanoacrylates.

Contact Permabond if you don't see exactly what you need!



# Rolled Seam - Crimp Sealing ANAEROBIC ADHESIVE SEALANTS

| Product                                                                     | Viscosity<br>(mPa.s) cP          | Gap fill in<br>(mm) | Flexibility | Compressive<br>strength | Temp. resistance °C<br>(°F) |
|-----------------------------------------------------------------------------|----------------------------------|---------------------|-------------|-------------------------|-----------------------------|
| <b>Permabond HH040</b><br>General purpose seam sealer, thixotropic sealant. | 5000 thixotropic                 | 0.010 (0.254)       | Low         | 2000 psi                | High 300°F (150°C)          |
| <b>Permabond HM166</b><br>High temperature resistant seam sealer.           | 15,000 thixotropic               | 0.020 (0.500)       | Low         | 2300 psi                | Very High 450°F (230°C)     |
| <b>Permabond MH196LV</b><br>Maximum gap filling seam sealer.                | Gel                              | 0.020 (0.500)       | High        | 750 psi                 | High 300°F (150°C)          |
| <b>Permabond LM198</b><br>Very flexible.                                    | 8000 some thixotropic properties | 0.012 (0.305)       | High        | 1400 psi                | High 300°F (150°C)          |

Anaerobic adhesives cure when confined between metal surfaces such as a rolled seam. Products vary in temperature resistance, gap fill, and viscosity. Above are only a few popular grades listed. Contact Permabond if you don't see exactly what you need!

## SEAM SEALING - CRIMP SEALING

The following list details why Permabond anaerobic sealants are the preferred choice for rolled seam and crimp sealing.

- ▶ Reduced reject rates
- ▶ Environmentally friendly
- ▶ Non-flammable - no hazardous shipping costs
- ▶ 100% solids - no waste
- ▶ Application process can be easily automated
- ▶ Fluoresce under black light for QC inspection
- ▶ Excellent resistance to water, oil, fuel, and other chemicals



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### End Cap Bonding MEDIA POTTING

| Product                                                                         | Viscosity Description | Viscosity cP                                          | Service Temp.                      | Cure                                                                 |
|---------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------|------------------------------------|----------------------------------------------------------------------|
| <b>Permabond ES550</b><br>Non sag, toughened, high impact strength.             | No Sag                | 1,500,000                                             | -40°F to 355°F<br>(-40°C to 180°C) | 130°C (266°F) 75 min<br>150°C (300°F) 60 min<br>170°C (338°F) 40 min |
| <b>Permabond ES562</b><br>Free flowing, toughened, high impact strength.        | Free Flowing          | 22,500                                                | -40°F to 355°F<br>(-40°C to 180°C) | 130°C (266°F) 60 min<br>150°C (300°F) 45 min<br>160°C (320°F) 20 min |
| <b>Permabond MT382</b><br>Flexible modified epoxy, 200% elongation, Shore D 25. | Self Leveling         | 21,500                                                | -40°F to 250°F<br>(-40°C to 120°C) | 2:1 Mix Ratio<br>Handling Strength < 2 hours                         |
| <b>Permabond PT328</b><br>Two component polyurethane.                           | Free Flowing          | 5250                                                  | -40°F to 250°F<br>(-40°C to 120°C) | 1:1 Mix Ratio<br>Handling Strength < 2 hours                         |
| <b>Permabond ET5147</b><br>Formulated in compliance with FDA 175.105.           | Thixotropic paste     | 20rpm: 32,500 mPa.s (cP)<br>2rpm: 120,000 mPa.s (cP)" | -40°F to 250°F<br>(-40°C to 120°C) | 2:1 Mix Ratio<br>Handling Strength < 5 hours                         |

Permabond manufactures a full line of adhesives for filter manufacturing. Products with different viscosity, hardness, elongation, temperature resistance, and cure speeds are available. A few of our products and capabilities are listed here, please contact Permabond for more information!



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