

Technical Data Sheet Fusionbond™ 37784

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Page 1 of 2

Product Description

Hernon® Fusionbond™ 37784 is a two component methacrylate adhesive. It is specially formulated for structural bonding of thermoplastics, metal, wood and composite assemblies. **Fusionbond™ 37784** is an excellent choice for composite bonding applications in the marine, automotive and construction industries because it requires virtually no surface preparation. **Fusionbond™ 37784** provides superior toughness at temperatures from -100 to 250°F.

Product Benefits

- 100% solid
- Easy mixing ratio of 1:1 by volume
- Almost no surface preparation is needed
- Superior fatigue and impact resistance
- Outstanding environmental resistance
- Exceptional at bonding dissimilar substrates
- Excellent salt spray resistance and gap filling ability
- Dramatically reduces assembly cost

Bondable Substrates

ABS	Phenolics
Acrylics (PMMA)	Polycarbonate and blends
Aluminum	Polysulfone
Brass	Polyurea RIM
Ceramics	Polyurethanes ¹
Copper	PPO and PPO blends
Epoxy	PVC & Vinyls
E-Coat ¹	Rim urethane
Fiberglass	Rubber
Gel Coats	SMC ¹
LMR (Liquid Molding Resins)	Stainless steel
Nylon 6 or Nylon 6 Alloys	Steel
PBT blends	Styrenics
PEEK	Titanium
PET blends	

¹ May need special treatment

Typical Properties (Uncured)

Property	Part A	Part B
Chemical Type	Methacrylate	Methacrylate
Appearance	White	Blue
Specific gravity	1.03	0.95
Viscosity at 25°C, cP	7000 to 9000	7000 to 9000
Mix ratio (by weight)	1	1
Flash Point	See MSDS	See MSDS

Typical Properties (Cured)

Property	Value
Elongation, ASTM D638, %	20 to 40
Hardness, ASTM D2240, Shore D	75 to 80
Glass Transition Temperature, °C	95 to 100
Temperature Range, °C (°F)	-55 to 121 (-67 to 250)
Gap Fill, inches	0.380

Typical Curing Performance

Property	Value
Working time, minutes	5 to 10
Fixture time, as received steel, mins.	10 to 15

Typical Cured Performance

Shear Strength, ASTM D1002
Lap-shear specimens

Substrate	Cure at 22°C	Value, psi
Steel (as received)	1 Hour	1540
	24 Hours	3510
Steel (abraded)	1 Hour	1850
	24 Hours	4550
Aluminum (as received)	24 Hours	2410
Aluminum (abraded)	24 Hours	4180

Shear Strength, ASTM D4501
Block-shear specimens
Cured 24 hours at 22°C

Substrate	Value, psi
ABS	875
Epoxyglass	740
Phenolic	480
PVC	2050

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Storage

Fusionbond™ 37784 should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°C) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

Dispensing Equipment

Hernon® offers a complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. HERNON MANUFACTURING, INC. shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith. Hernon's Quality Management System for the design and manufacture of high performance adhesives and sealants is registered to the ISO9001:2000 Quality Standard.