

Hydrolysable PEG-Based Absorbable Polymers

We offer an advanced portfolio of hydrolysable PEG-based absorbable polymers designed for a broad range of biomedical applications. These materials combine the hydrophilic and biocompatible properties of poly(ethylene glycol) (PEG) with biodegradable polymers such as PLGA (polylactide-co-glycolide), PLA (polylactide), PCL (polycaprolactone), PTMC (polytrimethylene carbonate), and PDS (polydioxanone). The result is a family of polymers with tunable degradation profiles, excellent biocompatibility, and versatile chemical functionality.

Our product line includes a variety of **acrylate- and methacrylate-functionalized PEGs**, as well as **di- and triblock copolymers** engineered for crosslinking and tailored degradation. These polymers degrade completely into safe, non-toxic byproducts, making them ideal for in vivo use.

We also offer a significantly expanded range of specialty polymers:

PCL-PEG-PCL Diacrylates – Enhanced stiffness, biodegradability, notable stability, low melting point, and strong rheological and viscoelastic properties.

PLA-PEG-PLA Diacrylates – Enhanced mechanical strength compared to standard PEG diacrylates, with a controlled absorption profile

PDLA-PEG-PDLA Diacrylates – Poly-D,L-Lactic acid (PDLLA) is hydrophobic in nature with durable mechanical features

PTMC-PEG-PTMC Diacrylates – Known for their flexibility and can be used as softening component

PDS-PEG-PDS Diacrylates – Offer high flexibility and good tensile strength

PEG Diacrylamide – Provides hydrolytically stable crosslinking and customizable network properties

Key Advantages:

- Fully hydrolysable and biocompatible
- Tunable degradation rates
- Acrylate/methacrylate and diacrylamide functionality for efficient crosslinking
- Mechanical and thermal versatility through block copolymer selection

Applications:

- Tissue adhesives and surgical sealants
- Drug delivery and encapsulation
- Injectable and in situ-forming hydrogels
- Cross-linked polymer networks for regenerative medicine and wound healing

Catalog #	Product
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PEG Dimethacrylate

7-1K-001	PEG (1000) Dimethacrylate
7-2K-001	PEG (2000) Dimethacrylate
7-3.4K-001	PEG (3400) Dimethacrylate
7-4K-001	PEG (4000) Dimethacrylate
7-6K-001	PEG (6000) Dimethacrylate
7-10K-001	PEG (10000) Dimethacrylate
7-20K-001	PEG (20000) Dimethacrylate
7-35K-001	PEG (35000) Dimethacrylate

PEG Diacrylate

7-0.7-002	PEG (700) Diacrylate
7-1K-002	PEG (1000) Diacrylate
7-2K-002	PEG (2000) Diacrylate
7-3.4K-002	PEG (3400) Diacrylate
7-4K-002	PEG (4000) Diacrylate
7-6K-002	PEG (6000) Diacrylate
7-10K-002	PEG (10000) Diacrylate
7-20K-002	PEG (20000) Diacrylate
7-35K-002	PEG (35000) Diacrylate

PLA-PEG-PLA Diacrylate

7-1.2K-003	PLA (100)-PEG (1000)-PLA (100) Diacrylate
7-2.4K-003	PLA (200)-PEG (2000)-PLA (200) Diacrylate
7-4K-003	PLA (300)-PEG (3400)-PLA (300) Diacrylate
7-4.4K-003	PLA (500)-PEG (3400)-PLA (500) Diacrylate
7-4.6K-003	PLA (600)-PEG (3400)-PLA (600) Diacrylate
7-4.8K-003	PLA (400)-PEG (4000)-PLA (400) Diacrylate
7-7.2K-003	PLA (600)-PEG (6000)-PLA (600) Diacrylate
7-8K-003	PLA (1000)-PEG (6000)-PLA (1000) Diacrylate
7-12K-003	PLA (1000)-PEG (10000)-PLA (1000) Diacrylate
7-24K-003	PLA (2000)-PEG (20000)-PLA (2000) Diacrylate

PCL-PEG-PCL Diacrylate

7-1.2K-004	PCL (100)-PEG (1000)-PCL (100) Diacrylate
7-2.4K-004	PCL (200)-PEG (2000)-PCL (200) Diacrylate
7-4K-004	PCL (300)-PEG (3400)-PCL (300) Diacrylate
7-4.4K-004	PCL (500)-PEG (3400)-PCL (500) Diacrylate
7-4.6K-004	PCL (600)-PEG (3400)-PCL (600) Diacrylate
7-4.8K-004	PCL (400)-PEG (4000)-PCL (400) Diacrylate
7-7.2K-004	PCL (600)-PEG (6000)-PCL (600) Diacrylate
7-8K-004	PCL (1000)-PEG (6000)-PCL (1000) Diacrylate

7-12K-004	PCL (1000)-PEG (10000)-PCL (1000) Diacrylate
7-24K-004	PCL (2000)-PEG (20000)-PCL (2000) Diacrylate

PCL-PEG-PCL Dimethacrylate

7-12K-009	PCL (1000)-PEG (10000)-PCL (1000) Dimethacrylate
7-13K-009	PCL (1500)-PEG (10000)-PCL (1500) Dimethacrylate
7-23K-009	PCL (1500)-PEG (20000)-PCL (1500) Dimethacrylate
7-24K-009	PCL (2000)-PEG (20000)-PCL (2000) Dimethacrylate

P_{DL}LA-PEG-P_{DL}LA Diacrylate

7-4K-006	P _{DL} LA (300)-PEG (3400)-P _{DL} LA (300) Diacrylate
7-4.4K-006	P _{DL} LA (500)-PEG (3400)-P _{DL} LA (500) Diacrylate
7-4.6K-006	P _{DL} LA (600)-PEG (3400)-P _{DL} LA (600) Diacrylate
7-4.8K-006	P _{DL} LA (400)-PEG (4000)-P _{DL} LA (400) Diacrylate
7-7.2K-006	P _{DL} LA (600)-PEG (6000)-P _{DL} LA (600) Diacrylate
7-8K-006	P _{DL} LA (1000)-PEG (6000)-P _{DL} LA (1000) Diacrylate
7-12K-006	P _{DL} LA (1000)-PEG (10000)-P _{DL} LA (1000) Diacrylate
7-24K-006	P _{DL} LA (2000)-PEG (20000)-P _{DL} LA (2000) Diacrylate

PTMC-PEG-PTMC Diacrylate

7-4K-008	PTMC (300)-PEG (3400)-PTMC (300) Diacrylate
7-4.4K-008	PTMC (500)-PEG (3400)-PTMC (500) Diacrylate
7-4.6K-008	PTMC (600)-PEG (3400)-PTMC (600) Diacrylate
7-4.8K-008	PTMC (400)-PEG (4000)-PTMC (400) Diacrylate
7-7.2K-008	PTMC (600)-PEG (6000)-PTMC (600) Diacrylate
7-8K-008	PTMC (1000)-PEG (6000)-PTMC (1000) Diacrylate
7-12K-008	PTMC (1000)-PEG (10000)-PTMC (1000) Diacrylate
7-24K-008	PTMC (2000)-PEG (20000)-PTMC (2000) Diacrylate

PPDO-PEG-PPDO Diacrylate

7-4K-007	PPDO (300)-PEG (3400)-PPDO (300) Diacrylate
7-4.4K-007	PPDO (500)-PEG (3400)-PPDO (500) Diacrylate
7-4.6K-007	PPDO (600)-PEG (3400)-PPDO (600) Diacrylate
7-4.8K-007	PPDO (400)-PEG (4000)-PPDO (400) Diacrylate
7-7.2K-007	PPDO (600)-PEG (6000)-PPDO (600) Diacrylate
7-8K-007	PPDO (1000)-PEG (6000)-PPDO (1000) Diacrylate
7-12K-007	PPDO (1000)-PEG (10000)-PPDO (1000) Diacrylate
7-24K-007	PPDO (2000)-PEG (20000)-PPDO (2000) Diacrylate

PEG Diacrylamide

7-1K-005	PEG (1000) Diacrylamide
7-2K-005	PEG (2000) Diacrylamide

7-3.4K-005	PEG (3400) Diacrylamide
7-4K-005	PEG (4000) Diacrylamide
7-6K-005	PEG (6000) Diacrylamide
7-10K-005	PEG (10000) Diacrylamide
7-35K-005	PEG (35000) Diacrylamide

PEG Diamine

7-1K-010	PEG (1000) Diamine
7-2K-010	PEG (2000) Diamine
7-3.4K-010	PEG (3400) Diamine
7-4K-010	PEG (4000) Diamine
7-6K-010	PEG (6000) Diamine
7-10K-010	PEG (10000) Diamine

PCL Products

7-530-011	PCL (530) Diacrylate
7-2K-011	PCL (2000) Diacrylate
7-300-012	PCL (300) Triacrylate
7-300-013	PCL (300) Trimethacrylate

Copolymers

8-1.2K-014	PCL (100)-PEG (1000)-PCL (100) Copolymer
8-2.4K-014	PCL (200)-PEG (2000)-PCL (200) Copolymer
8-4K-014	PCL (300)-PEG (3400)-PCL (300) Copolymer
8-4.8K-014	PCL (400)-PEG (4000)-PCL (400) Copolymer
8-7.2K-014	PCL (600)-PEG (6000)-PCL (600) Copolymer
8-8K-014	PCL (1000)-PEG (6000)-PCL (1000) Copolymer
8-12K-014	PCL (1000)-PEG (10000)-PCL (1000) Copolymer
8-13K-014	PCL (1500)-PEG (10000)-PCL (1500) Copolymer
8-23K-014	PCL (1500)-PEG (20000)-PCL (1500) Copolymer
8-24K-014	PCL (2000)-PEG (20000)-PCL (2000) Copolymer
8-4K-015	PPDO (300)-PEG (3400)-PPDO (300) Copolymer
8-4.4K-015	PPDO (500)-PEG (3400)-PPDO (500) Copolymer
8-4.8K-015	PPDO (400)-PEG (4000)-PPDO (400) Copolymer
8-8K-015	PPDO (1000)-PEG (6000)-PPDO (1000) Copolymer
8-4.6K-015	PPDO (600)-PEG (3400)-PPDO (600) Copolymer
8-7.2K-015	PPDO (600)-PEG (6000)-PPDO (600) Copolymer
8-20.4K-015	PPDO (2000)-PEG (20000)-PPDO (2000) Copolymer
8-4K-016	PLA (300)-PEG (3400)-PLA (300) Copolymer
8-4.4K-016	PLA (500)-PEG (3400)-PLA (500) Copolymer
8-4.6K-016	PLA (600)-PEG (3400)-PLA (600) Copolymer
8-4.8K-016	PLA (400)-PEG (4000)-PLA (400) Copolymer
8-7.2K-016	PLA (600)-PEG (6000)-PLA (600) Copolymer
8-8K-016	PLA (1000)-PEG (6000)-PLA (1000) Copolymer

8-4K-017	P _{DLLA} (300)-PEG (3400)-P _{DLLA} (300) Copolymer
8-4.4K-017	P _{DLLA} (500)-PEG (3400)-P _{DLLA} (500) Copolymer
8-4.6K-017	P _{DLLA} (600)-PEG (3400)-P _{DLLA} (600) Copolymer
8-4.8K-017	P _{DLLA} (400)-PEG (4000)-P _{DLLA} (400) Copolymer
8-7.2K-017	P _{DLLA} (600)-PEG (6000)-P _{DLLA} (600) Copolymer
8-8K-017	P _{DLLA} (1000)-PEG (6000)-P _{DLLA} (1000) Copolymer
8-20.4K-017	P _{DLLA} (2000)-PEG (20000)-P _{DLLA} (2000) Copolymer
8-4K-018	PTMC (300)-PEG (3400)-PTMC (300) Copolymer
8-4.6K-018	PTMC (600)-PEG (3400)-PTMC (600) Copolymer
8-4.4K-018	PTMC (500)-PEG (3400)-PTMC (500) Copolymer
8-4.8K-018	PTMC (400)-PEG (4000)-PTMC (400) Copolymer
8-7.2K-018	PTMC (600)-PEG (6000)-PTMC (600) Copolymer
8-8K-018	PTMC (1000)-PEG (6000)-PTMC (1000) Copolymer
8-20.4K-018	PTMC (2000)-PEG (20000)-PTMC (2000) Copolymer
8-20.4K-018	PTMC (2000)-PEG (20000)-PTMC (2000) Copolymer
8-9.4K-018	PTMC (3000)-PEG (3400)-PTMC (3000) Copolymer