

Advanced Polymer Materials Inc.



Product Selection Guide

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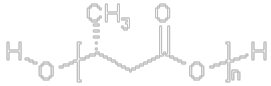

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Content

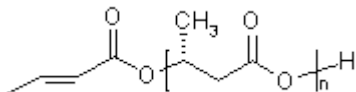
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1. Biodegradable Polymers and Copolymers

1.1. Poly((R)-3-hydroxyalkanoate)s (PHA)s, natural polymers

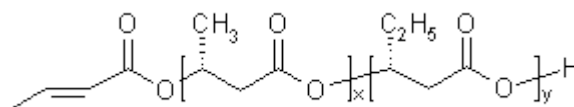
Cat #	Product name	Molecular weight (Mw)	Mw/Mn	Chemical Structure
1-01-1	Poly((R)-3-hydroxybutyrate) [26063-00-3]	470000		
1-02-10	Poly((R)-3-hydroxybutyrate/valerate) (10mol% V)			
1-02-20	Poly(3(R)-hydroxybutyrate/valerate) (20mol% V)			

1.2. (1) Low Molecular Weight Poly((R)-3-hydroxybutyrate) (LMW PHB)*



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
2-01-500	PHB-500	~500	1.1-1.2
2-01-1000	PHB-1000	~1000	1.1-1.2
2-01-1500	PHB-1500	~1500	1.1-1.2
2-01-2000	PHB-2000	~2000	1.1-1.4
2-01-2500	PHB-2500	~2500	1.1-1.4
2-01-3000	PHB-3000	~3000	1.1-1.4
2-01-4000	PHB-4000	~4000	1.1-1.5
2-01-5000	PHB-5000	~5000	1.2-1.5
2-01-6000	PHB-6000	~6000	1.2-1.5
2-01-8000	PHB-8000	~8000	1.2-1.8
2-01-10000	PHB-10000	~10000	1.3-1.8

(2) Low Molecular Weight Poly((R)-3-hydroxybutyrate/valerate) (10mol% V) (PHB/V(10)) (2-02)



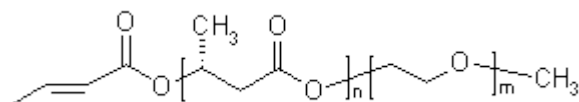
Cat #	Product name	Molecular weight (Mn)	Mw/Mn
2-02-10-500	PHB/V(10)-500	~500	1.1-1.2
2-02-10-1000	PHB/V(10)-1000	~1000	1.1-1.2
2-02-10-1500	PHB/V(10)-1500	~1500	1.1-1.3
2-02-10-2000	PHB/V(10)-2000	~2000	1.1-1.3
2-02-10-3000	PHB/V(10)-3000	~3000	1.1-1.4
2-02-10-4000	PHB/V(10)-4000	~4000	1.2-1.5
2-02-10-5000	PHB/V(10)-5000	~5000	1.2-1.6
2-02-10-6000	PHB/V(10)-6000	~6000	1.2-1.6
2-02-10-8000	PHB/V(10)-8000	~8000	1.3-1.8
2-02-10-10000	PHB/V(10)-10000	~10000	1.3-1.8

*The molecular weights (Mn, Mw, Mp) are determined for each lot when a product is produced.

Specified molecular weight polymers can be obtained when required.

2. Biodegradable Block Copolymers

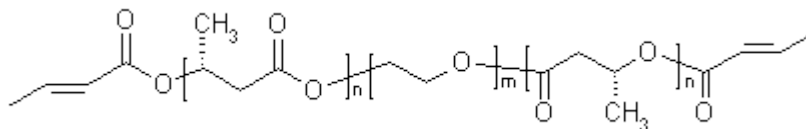
2.1. Poly((R)-3-hydroxybutyrate)- b-poly(ethylene glycol) block copolymers (PHB-b-PEG) (3-201)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
3-201-500/350	PHB-b-PEG(500/350)	PHB:500 / PEG:350	1.1-1.4
3-201-500/750	PHB-b-PEG(500/750)	PHB:500 / PEG:750	1.1-1.4
3-201-500/1000	PHB-b-PEG(500/1000)	PHB:500 / PEG:1000	1.1-1.4
3-201-500/2000	PHB-b-PEG(500/2000)	PHB:500 / PEG:2000	1.1-1.4
3-201-500/5000	PHB-b-PEG (500/5000)	PHB:500 / PEG:5000	1.1-1.4
3-201-1000/350	PHB-b-PEG (1000/350)	PHB:1000 / PEG:350	1.1-1.4
3-201-1000/750	PHB-b-PEG (1000/750)	PHB:1000 / PEG:750	1.1-1.4
3-201-1000/1000	PHB-b-PEG (1000/1000)	PHB:1000 / PEG:1000	1.1-1.4
3-201-1000/2000	PHB-b-PEG (1000/2000)	PHB:1000 / PEG:2000	1.1-1.4
3-201-1000/5000	PHB-b-PEG (1000/5000)	PHB:1000 / PEG:5000	1.1-1.4
3-201-1500/PEG	PHB-b-PEG (1500 / 350 to 5000)	PHB:1500 / PEG: select an Mn	1.1-1.4
3-201-2000/PEG	PHB-b-PEG (2000 / 350 to 5000)	PHB:2000 / PEG: select an Mn	1.1-1.4
3-201-3000/PEG	PHB-b-PEG (3000 / 350 to 5000)	PHB:3000 / PEG: select an Mn	1.2-1.5
3-201-4000/PEG	PHB-b-PEG (4000 / 350 to 5000)	PHB:4000 / PEG: select an Mn	1.2-1.5
3-201-5000/PEG	PHB-b-PEG (5000 / 350 to 5000)	PHB:5000 / PEG: select an Mn	1.2-1.8

The molecular weights (Mn, Mw, Mp) are determined for each lot when a product is produced.

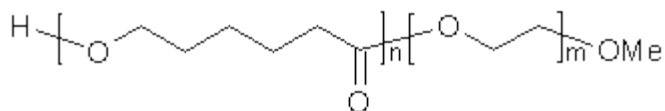
2.3. Poly((R)-3-hydroxybutyrate)- b-poly(ethylene glycol)-b-Poly((R)-3-hydroxybutyrate) triblock copolymers (PHB-b-PEG-b-PHB) (4-201)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
4-201-500/600/500	PHB-b-PEG-b-PHB (500/600/500)	PHB: 500 / PEG:600	1.1-1.2
4-201-500/1000/500	PHB-b-PEG-b-PHB (500/1000/500)	PHB: 500 / PEG:1000	1.1-1.2
4-201-500/2000/500	PHB-b-PEG-b-PHB (500/2000/500)	PHB: 500 / PEG:2000	1.1-1.2
4-201-500/4000/500	PHB-b-PEG-b-PHB (500/4000/500)	PHB: 500 / PEG:4000	1.1-1.2
4-201-500/6000/500	PHB-b-PEG-b-PHB (500/6000/500)	PHB: 500 / PEG:6000	1.1-1.2
4-201-500/8000/500	PHB-b-PEG-b-PHB (500/8000/500)	PHB: 500 / PEG:8000	1.1-1.2
4-201-500/10000/500	PHB-b-PEG-b-PHB (500/10000/500)	PHB: 500 / PEG:10000	1.1-1.2
4-201-1000/PEG/1000 series	PHB-b-PEG-b-PHB (1000/PEG/1000)	PHB:1000 / PEG: select an Mn	1.1-1.3
4-201-1500/PEG/1500 series	PHB-b-PEG-b-PHB (1500/PEG/1500)	PHB:1500 / PEG: select an Mn	1.1-1.4
4-201-2000/PEG/2000 series	PHB-b-PEG-b-PHB (2000/PEG/2000)	PHB:2000 / PEG: select an Mn	1.1-1.5
4-201-3000/PEG/3000 series	PHB-b-PEG-b-PHB (3000/PEG/3000)	PHB:3000 / PEG: select an Mn	1.1-1.5

Block copolymers can be ordered with specified molecular weight and molecular weight ratio.

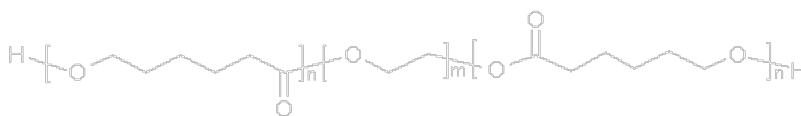
2.5. Block copolymers of poly(ethylene glycol) and poly(caprolactone) (PCL-b-PEG or PEG-b-PCL) (5-01)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
5-01-600/350	PCL-b-PEG (600/350)	PCL: 600 / PEG: 350	1.08-1.2
5-01-600/750	PCL-b-PEG (600/750)	PCL: 600 / PEG: 750	1.08-1.2
5-01-600/1000	PCL-b-PEG (600/1000)	PCL: 600 / PEG: 1000	1.08-1.2
5-01-600/2000	PCL-b-PEG (600/2000)	PCL: 600 / PEG: 2000	1.08-1.2
5-01-600/5000	PCL-b-PEG (600/5000)	PCL: 600 / PEG: 5000	1.08-1.2
5-01-1200/350	PCL-b-PEG (1200/350)	PCL: 1200 / PEG: 350	1.1-1.3
5-01-1200/750	PCL-b-PEG (1200/750)	PCL: 1200 / PEG: 750	1.1-1.3
5-01-1200/1000	PCL-b-PEG (1200/1000)	PCL: 1200 / PEG: 1000	1.1-1.3
5-01-1200/2000	PCL-b-PEG (1200/2000)	PCL: 1200 / PEG: 2000	1.08-1.3
5-01-1200/5000	PCL-b-PEG (1200/5000)	PCL: 1200 / PEG: 5000	1.08-1.3
5-01-1500/PEG	PCL-b-PEG (1500/350 to 5000)	PCL: 1500 / PEG: select an Mn	1.08-1.3
5-01-2000/PEG	PCL-b-PEG (2000/350 to 5000)	PCL: 2000 / PEG: select an Mn	1.08-1.3
5-01-2500/PEG	PCL-b-PEG (2500/350 to 5000)	PCL: 2500 / PEG: select an Mn	1.08-1.4
5-01-3000/PEG	PCL-b-PEG (3000/350 to 5000)	PCL: 3000 / PEG: select an Mn	1.1-1.4
5-01-4000/PEG	PCL-b-PEG (4000/350 to 5000)	PCL: 4000 / PEG: select an Mn	1.1-1.4
5-01-5000/PEG	PCL-b-PEG (5000/350 to 5000)	PCL: 5000 / PEG: select an Mn	1.1-1.4
5-01-10000/PEG	PCL-b-PEG (10000/350 to 5000)	PCL: 10000 / PEG: select an Mn	1.1-1.4

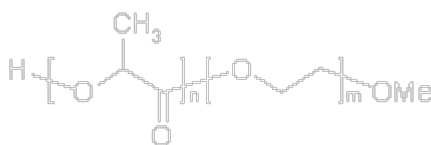
Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

2.6. PCL-b-PEG-b-PCL BAB type triblock copolymers (5-02)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
5-02-600/300/600	PCL-b-PEG-b-PCL (600/300/600)	PCL: 600 / PEG: 300	1.1-1.2
5-02-600/600/600	PCL-b-PEG-b-PCL (600/600/600)	PCL: 600 / PEG: 600	1.1-1.2
5-02-600/1000/600	PCL-b-PEG-b-PCL (600/1000/600)	PCL: 600 / PEG: 1000	1.1-1.2
5-02-600/1500/600	PCL-b-PEG-b-PCL (600/1500/600)	PCL: 600 / PEG: 1500	1.1-1.2
5-02-600/2000/600	PCL-b-PEG-b-PCL (600/2000/600)	PCL: 600 / PEG: 2000	1.1-1.2
5-02-600/4000/600	PCL-b-PEG-b-PCL (600/4000/600)	PCL: 600 / PEG: 4000	1.1-1.2
5-02-600/6000/600	PCL-b-PEG-b-PCL (600/6000/600)	PCL: 600 / PEG: 6000	1.1-1.2
5-02-1200/300/1200	PCL-b-PEG-b-PCL (1200/300/1200)	PCL: 1200 / PEG: 300	1.1-1.3
5-02-1200/600/1200	PCL-b-PEG-b-PCL (1200/600/1200)	PCL: 1200 / PEG: 600	1.1-1.3
5-02-1200/1000/1200	PCL-b-PEG-b-PCL (1200/1000/1200)	PCL: 1200 / PEG: 1000	1.1-1.3
5-02-1200/1500/1200	PCL-b-PEG-b-PCL (1200/1500/1200)	PCL: 1200 / PEG: 1500	1.1-1.3
5-02-1200/2000/1200	PCL-b-PEG-b-PCL (1200/2000/1200)	PCL: 1200 / PEG: 2000	1.1-1.3
5-02-1200/4000/1200	PCL-b-PEG-b-PCL (1200/4000/1200)	PCL: 1200 / PEG: 4000	1.1-1.2
5-02-1200/6000/1200	PCL-b-PEG-b-PCL (1200/6000/1200)	PCL: 1200 / PEG: 6000	1.1-1.2
5-02-1200/8000/1200	PCL-b-PEG-b-PCL (1200/8000/1200)	PCL: 1200 / PEG: 8000	1.1-1.2
5-02-1200/10000/1200	PCL-b-PEG-b-PCL (1200/10000/1200)	PCL: 1200 / PEG: 10000	1.1-1.2
5-02-1500/PEG/1500 series	PCL-b-PEG-b-PCL (1500/300-10000/1500)	PCL: 1500 / PEG: select an Mn	1.1-1.3
5-02-2000/PEG/2000 series	PCL-b-PEG-b-PCL (2000/300 to 10000/2000)	PCL: 2000 / PEG: select an Mn	1.1-1.4
5-02-2500/PEG/2500 series	PCL-b-PEG-b-PCL (2500/300 to 10000/2500)	PCL: 2500 / PEG: select an Mn	1.1-1.4
5-02-3000/PEG/3000 series	PCL-b-PEG-b-PCL (3000/300 to 10000/3000)	PCL: 3000 / PEG: select an Mn	1.1-1.4
5-02-4000/PEG/4000 series	PCL-b-PEG-b-PCL (4000/300 to 10000/4000)	PCL: 4000 / PEG: select an Mn	1.1-1.4
5-02-5000/PEG/5000 series	PCL-b-PEG-b-PCL (5000/300 to 10000/5000)	PCL: 5000 / PEG: select an Mn	1.1-1.4

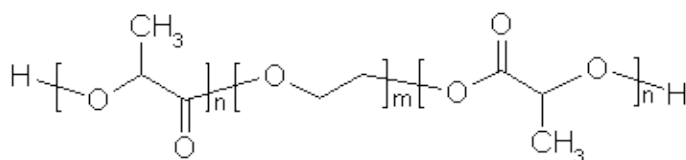
2.7. Block copolymers of poly(ethylene glycol) and poly(lactide) (PEG-b-PLA or PLA-b-PEG) (6-01)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
6-01-700/350	PLA-b-PEG (700/350) or PEG-b-PLA (350/700)	PLA: 600 / PEG: 350	1.1-1.2
6-01-700/750	PLA-b-PEG (700/750) or PEG-b-PLA (750/700)	PLA: 600 / PEG: 750	1.1-1.2
6-01-700/1000	PLA-b-PEG (700/1000) or PEG-b-PLA (1000/700)	PLA: 600 / PEG: 1000	1.1-1.2
6-01-700/2000	PLA-b-PEG (700/2000) or PEG-b-PLA (200/700)	PLA: 600 / PEG: 2000	1.1-1.2
6-01-700/5000	PLA-b-PEG (700/5000) or PEG-b-PLA (5000/700)	PLA: 600 / PEG: 5000	1.1-1.2
6-01-1000/350	PLA-b-PEG (1000/350) or PEG-b-PLA (350/1000)	PLA: 1000 / PEG: 350	1.1-1.2
6-01-1000/750	PLA-b-PEG (1000/750) or PEG-b-PLA (750/1000)	PLA: 1000 / PEG: 750	1.1-1.2
6-01-1000/1000	PLA-b-PEG (1000/1000) or PEG-b-PLA (1000/1000)	PLA: 1000 / PEG: 1000	1.1-1.2
6-01-1000/2000	PLA-b-PEG (1000/2000) or PEG-b-PLA (2000/1000)	PLA: 1000 / PEG: 2000	1.1-1.2
6-01-1000/5000	PLA-b-PEG (1000/5000) or PEG-b-PLA (5000/1000)	PLA: 1000 / PEG: 5000	1.1-1.2
6-01-1500/PEG series	PLA-b-PEG (1500/350 to 5000) or PEG-b-PLA (350 to 5000/1500)	PLA: 1500 / PEG: select an Mn	1.1-1.3
6-01-2000/PEG series	PLA-b-PEG (2000/350 to 5000) or PEG-b-PLA (350 to 5000/2000)	PLA: 2000 / PEG: select an Mn	1.1-1.2
6-01-3000/PEG series	PLA-b-PEG (3000/350 to 5000) or PEG-b-PLA (350-5000/3000)	PLA: 3000 / PEG: select an Mn	1.1-1.3
6-01-5000/PEG series	PLA-b-PEG (5000/350 to 5000) or PEG-b-PLA (350 to 5000/5000)	PLA: 5000 / PEG: select an Mn	1.1-1.4
6-01-10000/PEG series	PLA-b-PEG (10000/350 to 5000) or PEG-b-PLA (350 to 5000/10000)	PLA: 10000 / PEG: select an Mn	1.1-1.4

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

2.8. Poly(lactide)-b-poly(ethylene glycol)-b-Poly(lactide) BAB type triblock copolymers (6-02)

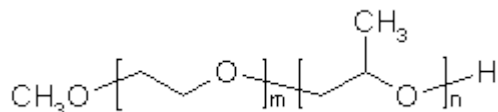


Cat #	Product name	Molecular weight (Mn)	Mw/Mn
6-02-700/300/700	PLA-b-PEG-b-PLA (700/300/700)	PLA: 700 / PEG: 300	1.1-1.3
6-02-700/600/700	PLA-b-PEG-b-PLA (700/600/700)	PLA: 700 / PEG: 600	1.1-1.3
6-02-700/1000/700	PLA-b-PEG-b-PLA (700/1000/700)	PLA: 700 / PEG: 1000	1.1-1.2
6-02-700/1500/700	PLA-b-PEG-b-PLA (700/1500/700)	PLA: 700 / PEG: 1500	1.1-1.2
6-02-700/2000/700	PLA-b-PEG-b-PLA (700/2000/700)	PLA: 700 / PEG: 2000	1.1-1.2
6-02-700/4000/700	PLA-b-PEG-b-PLA (700/4000/700)	PLA: 700 / PEG: 4000	1.1-1.2
6-02-700/6000/700	PLA-b-PEG-b-PLA (700/6000/700)	PLA: 700 / PEG: 6000	1.1-1.2
6-02-1000/300/1000	PLA-b-PEG-b-PLA (1000/300/1000)	PLA: 700 / PEG: 300	1.1-1.3
6-02-1000/600/1000	PLA-b-PEG-b-PLA (1000/600/1000)	PLA: 700 / PEG: 600	1.1-1.2
6-02-1000/1000/1000	PLA-b-PEG-b-PLA (1000/1000/1000)	PLA: 700 / PEG: 1000	1.1-1.2
6-02-1000/1500/1000	PLA-b-PEG-b-PLA (1000/1500/1000)	PLA: 700 / PEG: 1500	1.1-1.2
6-02-1000/2000/1000	PLA-b-PEG-b-PLA (1000/2000/1000)	PLA: 700 / PEG: 2000	1.1-1.2
6-02-1000/6000/1000	PLA-b-PEG-b-PLA (1000/6000/1000)	PLA: 700 / PEG: 6000	1.08-1.2
6-02-1000/8000/1000	PLA-b-PEG-b-PLA (1000/8000/1000)	PLA: 700 / PEG: 8000	1.08-1.2
6-02-1000/10000/1000	PLA-b-PEG-b-PLA (1000/10000/1000)	PLA: 700 / PEG: 10000	1.08-1.2
6-02-1500/PEG/1500 series	PLA-b-PEG-b-PLA (1500/300 to 10000/1500)	PLA: 1500 / PEG: select an Mn	1.1-1.3
6-02-2000/PEG/2000 series	PLA-b-PEG-b-PLA (2000/300 to 10000/2000)	PLA: 2000 / PEG: select an Mn	1.1-1.3
6-02-3000/PEG/3000 series	PLA-b-PEG-b-PLA (3000/300 to 10000/3000)	PLA: 3000 / PEG: select an Mn	1.1-1.3
6-02-5000/PEG/5000 series	PLA-b-PEG-b-PLA (5000/300 to 10000/5000)	PLA: 5000 / PEG: select an Mn	1.1-1.3
6-02-10000/PEG/10000 series	PLA-b-PEG-b-PLA (10000/300 to 10000/10000)	PLA: 10000 / PEG: select an Mn	1.1-1.4

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

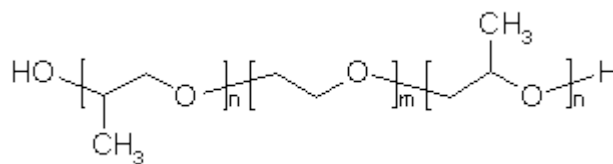
3. Oxirane Block Copolymers

3.1. PEO/PPO AB type diblock copolymers (PEO-b-PPO or PPO-b-PEO) (7-01)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
7-01-8/10	PEO-b-PPO (350/600) or (EO) ₈ -(PO) ₁₀	PPO: 600 / PEO: 350	1.1
7-01-8/15	PEO-b-PPO (350/900) or (EO) ₈ -(PO) ₁₅	PPO: 900 / PEO: 350	1.1
7-01-8/20	PEO-b-PPO (350/1200) or (EO) ₈ -(PO) ₂₀	PPO: 1200 / PEO: 350	1.1
7-01-8/30	PEO-b-PPO (350/1800) or (EO) ₈ -(PO) ₃₀	PPO: 1800 / PEO: 350	1.1-1.2
7-01-8/50	PEO-b-PPO (350/3000) or (EO) ₈ -(PO) ₅₀	PPO: 3000 / PEO: 350	1.1-1.2
7-01-8/n	(EO) ₈ -(PO) _n	PPO: required length / PEO: 350	1.1-1.2
7-01-17/10	(EO) ₁₇ -(PO) ₁₀	PPO: 600 / PEO: 750	1.1
7-01-17/15	(EO) ₁₇ -(PO) ₁₅	PPO: 900 / PEO: 750	1.1
7-01-17/20	(EO) ₁₇ -(PO) ₂₀	PPO: 1200 / PEO: 750	1.1
7-01-17/30	(EO) ₁₇ -(PO) ₃₀	PPO: 1800 / PEO: 750	1.1-1.2
7-01-17/50	(EO) ₁₇ -(PO) ₅₀	PPO: 3000 / PEO: 750	1.1-1.2
7-01-17/n	(EO) ₁₇ -(PO) _n	PPO: required length / PEO: 750	1.06-1.2
7-01-23/10	(EO) ₂₃ -(PO) ₁₀	PPO: 600 / PEO: 1000	1.1
7-01-23/20	(EO) ₂₃ -(PO) ₂₀	PPO: 1200 / PEO: 1000	1.1
7-01-23/30	(EO) ₂₃ -(PO) ₃₀	PPO: 1800 / PEO: 1000	1.1
7-01-23/n	(EO) ₂₃ -(PO) _n	PPO: required length / PEO: 1000	1.06-1.2
7-01-45/10	(EO) ₄₅ -(PO) ₁₀	PPO: 600 / PEO: 2000	1.1
7-01-45/20	(EO) ₄₅ -(PO) ₂₀	PPO: 1200 / PEO: 2000	1.1
7-01-45/30	(EO) ₄₅ -(PO) ₃₀	PPO: 1800 / PEO: 2000	1.1
7-01-45/n	(EO) ₄₅ -(PO) _n	PPO: required length / PEO: 2000	1.06-1.2
7-01-114/n	(EO) ₁₁₄ -(PO) _n	PPO: required length / PEO: 5000	1.06-1.2

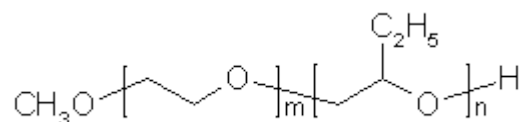
3.2. PEO/PPO BAB type triblock copolymer (7-03)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
7-03-n/8/n	poly(oxypropylene)-b-poly(oxyethylene)-b-poly(oxypropylene) (PO) _n -(EO) ₇ -(PO) _n	PPO: as required / PEO: 300	1.06-1.2
7-03-n/14/n	(PO) _n -(EO) ₁₄ -(PO) _n	PPO: as required / PEO: 600	1.06-1.2
7-03-5/23/5	(PO) ₅ -(EO) ₂₃ -(PO) ₅	PPO: 300 each side / PEO: 1000	1.06-1.2
7-03-10/23/10	(PO) ₁₀ -(EO) ₂₃ -(PO) ₁₀	PPO: 600 each side / PEO: 1000	1.06-1.2
7-03-20/23/20	(PO) ₂₀ -(EO) ₂₃ -(PO) ₂₀	PPO: 1100 each side / PEO: 1000	1.06-1.2
7-03-n/23/n	(PO) _n -(EO) ₂₃ -(PO) _n	PPO: as required / PEO: 1000	1.06-1.2
7-03-5/45/5	(PO) ₅ -(EO) ₄₅ -(PO) ₅	PPO: 300 each side / PEO: 2000	1.06-1.2
7-03-10/45/10	(PO) ₁₀ -(EO) ₄₅ -(PO) ₁₀	PPO: 600 each side / PEO: 2000	1.06-1.2
7-03-20/45/20	(PO) ₂₀ -(EO) ₄₅ -(PO) ₂₀	PPO: 1200 each side / PEO: 2000	1.06-1.2
7-03-n/45/n	(PO) _n -(EO) ₄₅ -(PO) _n	PPO: as required / PEO: 2000	1.06-1.2
7-03-n/90/n	(PO) _n -(EO) ₉₀ -(PO) _n	PPO: as required / PEO: 4000	1.06-1.2
7-03-n/136/n	(PO) _n -(EO) ₁₃₆ -(PO) _n	PPO: as required / PEO: 6000	1.06-1.2
7-03-n/181/n	(PO) _n -(EO) ₁₈₁ -(PO) _n	PPO: as required / PEO: 8000	1.06-1.2
7-03-n/225/n	(PO) _n -(EO) ₂₂₅ -(PO) _n	PPO: as required / PEO: 10000	1.06-1.2
7-03-n/450/n	(PO) _n -(EO) ₄₅₀ -(PO) _n	PPO: as required / PEO: 20000	1.06-1.2

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

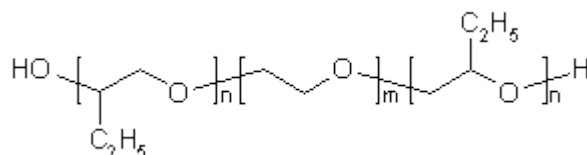
3.3. PEO/PBO AB type diblock copolymers (PEO-b-PBO or PBO-b-PEO) (8-01)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
8-01-8/5	poly(oxyethylene)-b-poly(oxybutylene) (EO) ₈ -(BO) ₅	PBO: 360 / PEO: 350	1.06-1.15
8-01-8/10	(EO) ₈ -(BO) ₁₀	PBO: 720 / PEO: 350	1.06-1.15
8-01-8/15	(EO) ₈ -(BO) ₁₅	PBO: 1100 / PEO: 350	1.06-1.15
8-01-8/20	(EO) ₈ -(BO) ₂₀	PBO: 1450 / PEO: 350	1.06-1.15
8-01-8/30	(EO) ₈ -(BO) ₃₀	PBO: 2200 / PEO: 350	1.06-1.15
8-01-8/n	(EO) ₈ -(BO) _n	PBO: as required / PEO: 350	1.06-1.15
8-01-17/5	(EO) ₁₇ -(BO) ₅	PBO: 360 / PEO: 750	1.06-1.15
8-01-17/10	(EO) ₁₇ -(BO) ₁₀	PBO: 720 / PEO: 750	1.06-1.15
8-01-17/15	(EO) ₁₇ -(BO) ₁₅	PBO: 1100 / PEO: 750	1.06-1.15
8-01-17/20	(EO) ₁₇ -(BO) ₂₀	PBO: 1450 / PEO: 750	1.06-1.15
8-01-17/n	(EO) ₁₇ -(BO) _n	PBO: as required / PEO: 750	1.06-1.15
8-01-23/10	(EO) ₂₃ -(BO) ₁₀	PBO: 720 / PEO: 1000	1.06-1.15
8-01-23/15	(EO) ₂₃ -(BO) ₁₅	PBO: 1100 / PEO: 1000	1.06-1.15
8-01-23/20	(EO) ₂₃ -(BO) ₂₀	PBO: 1450 / PEO: 1000	1.06-1.15
8-01-23/n	(EO) ₂₃ -(BO) _n	PBO: as required / PEO: 1000	1.06-1.15
8-01-45/10	(EO) ₄₅ -(BO) ₁₀	PBO: 720 / PEO: 2000	1.06-1.15
8-01-45/15	(EO) ₄₅ -(BO) ₁₅	PBO: 1100 / PEO: 2000	1.06-1.15
8-01-45/20	(EO) ₄₅ -(BO) ₂₀	PBO: 1450 / PEO: 2000	1.06-1.15
8-01-45/n	(EO) ₄₅ -(BO) _n	PBO: as required / PEO: 2000	1.06-1.15
8-01-114/n	(EO) ₁₁₄ -(BO) _n	PBO: as required / PEO: 5000	1.06-1.15

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

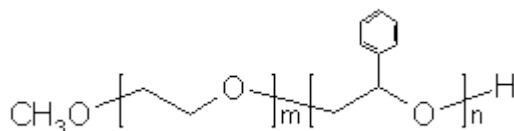
3.4. PEO/PBO BAB type triblock copolymers (8-03)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
8-03-n/8/n	poly(oxybutylene)-b-poly(oxyethylene)-b-poly(oxybutylene) or $(\text{BO})_n-(\text{EO})_7-(\text{BO})_n$	PBO: as required / PEO: 300	1.06-1.15
8-03-n/17/n	$(\text{BO})_n-(\text{EO})_{14}-(\text{BO})_n$	PBO: as required / PEO: 600	1.06-1.15
8-03-n/23/n	$(\text{BO})_n-(\text{EO})_{23}-(\text{BO})_n$	PBO: as required / PEO: 1000	1.06-1.15
8-03-n/45/n	$(\text{BO})_n-(\text{EO})_{45}-(\text{BO})_n$	PBO: as required / PEO: 2000	1.06-1.15
8-03-n/90/n	$(\text{BO})_n-(\text{EO})_{90}-(\text{BO})_n$	PBO: as required / PEO: 4000	1.06-1.15
8-03-n/136/n	$(\text{BO})_n-(\text{EO})_{136}-(\text{BO})_n$	PBO: as required / PEO: 6000	1.06-1.15
8-03-n/181/n	$(\text{BO})_n-(\text{EO})_{181}-(\text{BO})_n$	PBO: as required / PEO: 8000	1.06-1.15
8-03-n/225/n	$(\text{BO})_n-(\text{EO})_{225}-(\text{BO})_n$	PBO: as required / PEO: 10000	1.06-1.15
8-03-n/450/n	$(\text{BO})_n-(\text{EO})_{450}-(\text{BO})_n$	PBO: as required / PEO: 20000	1.06-1.15

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

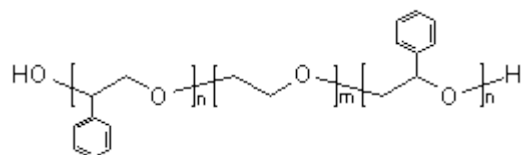
3.5. PEO/PSO AB type diblock copolymers (PEO-b-PSO or PSO-b-PEO) (9-01)



Cat #	Product name	Molecular weight (Mn)	Mw/Mn
9-01-8/5	poly(oxyethylene)-b-poly(oxystyrene) PEO-b-PSO (350/600) or (EO) ₈ -(SO) ₅	PSO: 650 / PEO: 350	1.06-1.2
9-01-8/10	(EO) ₈ -(SO) ₁₀	PSO:1200 / PEO: 350	1.06-1.2
9-01-8/20	(EO) ₈ -(SO) ₂₀	PSO:2400 / PEO: 350	1.06-1.2
9-01-8/n	(EO) ₈ -(SO) _n	PSO: as required / PEO: 350	1.06-1.2
9-01-17/5	(EO) ₁₇ -(SO) ₅	PSO: 600 / PEO: 750	1.06-1.2
9-01-17/10	(EO) ₁₇ -(SO) ₁₀	PSO: 1200 / PEO: 750	1.06-1.2
9-01-17/20	(EO) ₁₇ -(SO) ₂₀	PSO: 2400 / PEO: 750	1.06-1.2
9-01-17/n	(EO) ₁₇ -(SO) _n	PSO: as required / PEO: 750	1.06-1.2
9-01-23/5	(EO) ₂₃ -(SO) ₅	PSO: 600 / PEO: 1000	1.06-1.2
9-01-23/10	(EO) ₂₃ -(SO) ₁₀	PSO: 1200 / PEO: 1000	1.06-1.2
9-01-23/15	(EO) ₂₃ -(SO) ₁₅	PSO: 1800 / PEO: 1000	1.06-1.2
9-01-23/20	(EO) ₂₃ -(SO) ₂₀	PSO: 2400 / PEO: 1000	1.06-1.2
9-01-23/n	(EO) ₂₃ -(SO) _n	PSO: as required / PEO: 1000	1.06-1.2
9-01-45/5	(EO) ₄₅ -(SO) ₅	PSO: 600 / PEO: 2000	1.06-1.2
9-01-45/10	(EO) ₄₅ -(SO) ₁₀	PSO: 1200 / PEO: 2000	1.06-1.2
9-01-45/15	(EO) ₄₅ -(SO) ₁₅	PSO: 1800 / PEO: 2000	1.06-1.2
9-01-45/20	(EO) ₄₅ -(SO) ₂₀	PSO: 2400 / PEO: 2000	1.06-1.2
9-01-45/n	(EO) ₄₅ -(SO) _n	PSO: as required / PEO: 2000	1.06-1.2
9-01-114/n	(EO) ₁₁₄ -(SO) _n	PSO: as required / PEO: 5000	1.06-1.2

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

3.6. PEO/PSO BAB type triblock copolymers (9-03)

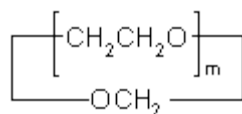


Cat #	Product name	Molecular weight (Mn)	Mw/Mn
9-03-n/23/n series	poly(oxystyrene)-b-poly(oxyethylene)-b-poly(oxystyrene) PSO-b-PEO-b-PSO (SO) _n -(EO) ₂₃ -(SO) _n	PSO: as required /PEO:1000	1.06-1.2
9-03-n/45/n series	(SO) _n -(EO) ₄₅ -(SO) _n	PSO: as required /PEO:2000	1.06-1.2
9-03-n/90/n	(SO) _n -(EO) ₉₀ -(SO) _n	PSO: as required /PEO:4000	1.06-1.2
9-03-n/136/n	(SO) _n -(EO) ₁₃₆ -(SO) _n	PSO: as required /PEO: 6000	1.06-1.2
9-03-n/181/n	(SO) _n -(EO) ₁₈₁ -(SO) _n	PSO: as required /PEO: 8000	1.06-1.2
9-03-n/225/n	(SO) _n -(EO) ₂₂₅ -(SO) _n	PSO: as required /PEO: 10000	1.06-1.2
9-03-n/450/n	(SO) _n -(EO) ₄₅₀ -(SO) _n	PSO: as required /PEO: 20000	1.06-1.2

Orders may be placed with specified molecular weight and molecular ratios, even for those not listed.

4. Cyclic Polymers and Copolymers

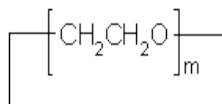
4.1. Cyclic poly(oxyethylene) with acetal linkage (10-01)



Cat #	Product name	Molecular weight (Mn)	Purity
10-01-300	Cyclo-poly(oxyethylene)-300	PEO: 300	>90 %
10-01-600	Cyclo-poly(oxyethylene)-600	PEO: 600	>90 %
10-01-1000	Cyclo-poly(oxyethylene)-1000	PEO: 1000	>90 %
10-01-1500	Cyclo-poly(oxyethylene)-1500	PEO: 1500	>90.5 %
10-01-2000	Cyclo-poly(oxyethylene)-2000	PEO: 2000	>90 %
10-01-4000	Cyclo-poly(oxyethylene)-4000	PEO: 4000	>90 %
10-01-6000	Cyclo-poly(oxyethylene)-6000	PEO: 6000	>90 %
10-01-8000	Cyclo-poly(oxyethylene)-8000	PEO: 8000	>90 %
10-01-10000	Cyclo-poly(oxyethylene)-10000	PEO: 10000	>90 %
10-01-20000	Cyclo-poly(oxyethylene)-20000	PEO: 20000	>90 %

For quotes, or any other inquiries, feel free to contact us at info@apmpolymers.com

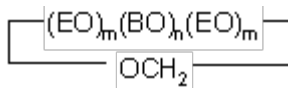
4.2. Cyclic poly(oxyethylene) large crown ether (10-02)



Cat #	Product name	Molecular weight (Mn)	Purity
10-02-300	Cyclo-poly(oxyethylene)-300	PEO: 300	>90 %
10-02-600	Cyclo-poly(oxyethylene)-600	PEO: 600	>90 %
10-02-1000	Cyclo-poly(oxyethylene)-1000	PEO: 1000	>90 %
10-02-1500	Cyclo-poly(oxyethylene)-1500	PEO: 1500	>90 %
10-02-2000	Cyclo-poly(oxyethylene)-2000	PEO: 2000	>90 %
10-02-4000	Cyclo-poly(oxyethylene)-4000	PEO: 4000	>90 %
10-02-6000	Cyclo-poly(oxyethylene)-6000	PEO: 6000	>90 %
10-02-8000	Cyclo-poly(oxyethylene)-8000	PEO: 8000	>90 %
10-02-10000	Cyclo-poly(oxyethylene)-10000	PEO: 10000	>90 %
10-02-20000	Cyclo-poly(oxyethylene)-20000	PEO: 20000	>90 %

For quotes, or any other inquiries, feel free to contact us at info@apmpolymers.com

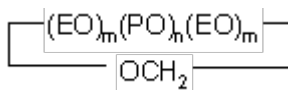
4.3. Cyclic bloc copolymers of poly(ethylene oxide) and poly(1,2-butylene oxide) (10-03)



Cat #	Product name	Molecular weight (Mn)	Purity
10-03-2 m/n	Cyclo-poly(oxyethylene)-b-poly(oxybutylene) (2m/n)	2m/n	>90 %

Please specify the molecular weight when you order these cyclics.

4.4. Cyclic bloc copolymers of poly(ethylene oxide) and poly(propylene oxide) (10-04)



Cat #	Product name	Molecular weight (Mn)	Purity
10-04-2m/n	Cyclo-poly(oxyethylene)-b-poly(oxypropylene) (2m/n)	2m/n	>90 %

Please specify the molecular weight when you order these cyclics.

mPEG series

We supply methoxy polyethylene glycol with different molecular weights for your R&D and production.



Molecular weight range: 350 to 20000.

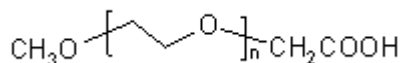
Catalog Number: **mPEG-XXXX**, where XXXX stands for number average molecular weight (Mn).

Multi-arm PEGs

3-arm, 4-arm and 6-arm PEGs are custom-synthesized. Their corresponding functionalized products are also supplied. Please call or e-mail us to order.

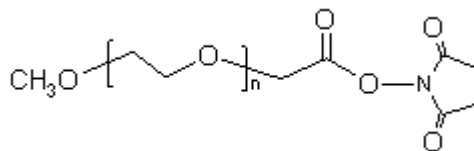
Functional PEGs for PEGylation

- **mPEG-COOH**



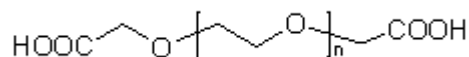
Catalogue number: **mPEG-CX-XXXX**. Molecular weight range: 350 to 20000.

- **mPEG-COONHS**



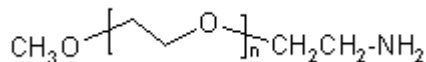
Catalogue number: **mPEG-NHS-XXXX**. Molecular weight range: 350 to 20000.

- **HOOC-PEG-COOH**



Catalogue number: **PEG-diCX-XXXX**, molecular weight range 200 to 20000.

- **mPEG-NH₂**



Catalogue number: **mPEG-NH2-XXXX**, molecular weight range: 350 to 20000.

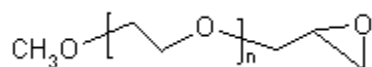
- **H₂N-PEG-NH₂**



Catalogue number: **PEG-diNH2-XXXX**, molecular weight range: 200 to 20000.

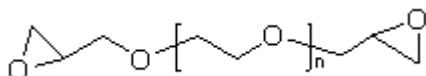
Glycidyl PEGs

- **Monoglycidyl**



mPEG-glycidyl ether, catalog number: **mPEG-glycidyl-XXXX**, molecular weight range: 350-20000.

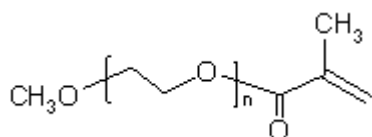
- **Diglycidyl PEGs**



PEG diglycidyl ether, catalog number: **PEG-diglycidyl-XXXX**, molecular weight range: 200 to 20000.

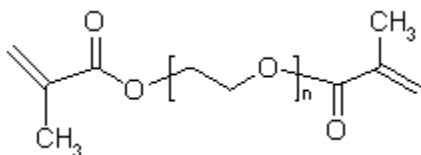
PEG methacrylate

- **Monomethacrylate**



Catalogue number: **mPEG-MA-XXXX**, molecular weight range: 350 to 20000.

- **Dimethacrylate**



Catalogue number: **PEG-diMA-XXXX**, molecular weight range: 200 to 20000.

We also accept orders for custom-designed functional PEGs.