

INFUSE™ Olefin Block Copolymers

Product Selection Guide

INFUSE™ Olefin Block Copolymers (OBCs) are polyolefins with alternating blocks of hard (highly rigid) and soft (highly elastomeric) segments. The block structure of OBCs offers an advantaged performance balance of flexibility and heat resistance compared to random polyolefin copolymers. The INFUSE™ OBC product offering features resins for a variety of fabrication processes – creating exciting possibilities for polymer converters, processors and formulators – in everything from footwear and housewares to absorbent hygiene products (AHPs) and hot melt adhesives (HMAs).

INFUSE™ 烯烴嵌段共聚物 (OBC) 是由硬 (高剛性) 和軟 (高彈性) 嵌段交替排列的聚烯烴。與無規聚烯烴共聚物相比，OBC 的嵌段結構使其在柔韌性和耐熱性之間實現了更佳的性能平衡。INFUSE™ OBC 產品系列包含適用於各種製造流程的樹脂，為聚合物轉換器、加工商和配方師創造了令人興奮的可能性，應用範圍涵蓋鞋類和家居用品、吸收性衛生用品 (AHP) 和熱熔膠 (HMA) 等各種領域。

INFUSE™ OBC Grades Introduction 等級介紹

	9000	9010	9007	9077	9100	9107
Description / Key Attributes 描述 /關鍵屬性	Good elastic recovery 良好的彈性恢復性	Low tack, high tensile strength 低黏性，高拉伸強度	Highly flexible, excellent elastic recovery 高度靈活，優異的彈性恢復	Highly flexible, excellent softness 高度靈活，柔軟度極佳	High service temperature performance 高使用溫度性能	High service temperature performance 高使用溫度性能
	Excellent compression set in blends and compounds 共混物和複合材料具有優異的壓縮永久變形性能	Excellent for blends and compounds 非常適合混合和複合物	Excellent for blends and compounds 非常適合混合物和複合物	Excellent compatibilizer and blend component 優良的相容劑和共混組分	General purpose elastomer 通用彈性體	General purpose elastomer 通用彈性體
	–	–	Dusted 揮掉灰塵	Dusted 揮掉灰塵	–	Dusted 揮掉灰塵
Typical Applications 典型應用	Compounding, Profile Extrusion 複合、型材、擠出	Compounding, Profiles, Grips, Thermoplastic Elastomers (TPEs) 複合材料、型材、握把、熱塑性彈性體 (TPE)	Compounding, TPEs, Elastic Films/Laminates 複合、類型、彈性薄膜/層板材料	Crosslinked (XL) Foams, Compounding 交聯 (XL) 泡沫、複合	Compounding, Profile Extrusion, Blown Films 複合、異形擠出、吹膜	TPEs, Elastic Films/Laminates, Blown Films TPE、彈性薄膜/層壓材料、吹塑薄膜



		9000	9010	9007	9077	9100	9107
Physical Properties 物理性質							
Melt Index, 熔融指數 g/10 min (2.16 kg @ 190°C)	ASTM D1238	0.5	0.5	0.5	0.5	1	1
Density 密度, g/cc	ASTM D792	0.877	0.877	0.866	0.869	0.877	0.866
DSC Melting Point, 熔點, °F (°C)	Dow Method(3)	248 (120)	252 (122)	246 (119)	244 (118)	248 (120)	250 (121)
Glass Transition Temperature, 玻璃化轉變溫度, °F (°C)	Dow Method(3)	-80 (-62)	-65 (-54)	-80 (-62)	-85 (-65)	-80 (-62)	-80 (-62)
Mechanical Properties 機械性質							
Hardness, 硬度 Shore A	ASTM D2240	71	77	64	51	75	60
Tensile Modulus, 拉伸模量 100%Secant, 割線 psi (MPa)	ASTM D638	477 (3.3)	493 (3.4)	258 (1.8)	175 (1.2)	404 (2.8)	234 (1.6)
Ultimate Tensile Strength, 極限拉伸強度 psi (MPa)	ASTM D638	911 (6.3)	1,910 (13.2)	590 (4.1)	435 (3.0)	950 (6.6)	739 (5.1)
Ultimate Tensile Elongation, 極限拉伸伸長率 %	ASTM D638	370	>750	400	>750	480	600
Ultimate Tensile Strength, 極限拉伸強度 psi (MPa)	ASTM D412	2,175 (15)	2,110 (14.5)	1,407 (10)	—	1,885 (13)	1,595 (11)
Ultimate Tensile Elongation 極限拉伸伸長率 %	ASTM D412	1,150	770	1,300	—	1,250	1,550
Tear Strength, 撕裂強度 kN/m	ASTM D624	42	48	29	26	40	27
Thermal Properties 熱性能							
TMA @ 1.0 mm, °F (°C)	1 N, 5°C/min ₍₃₎	219 (104)	250 (121)	190 (88)	226 (108)	237 (114)	151 (66)
Compression Set 壓縮變形 @ 21°C, %	ASTM D395	23	24	18	20	19	16
Compression Set 壓縮變形 @ 70°C, %	ASTM D395	45	67	57	43	47	49

(1) These are typical properties, not to be construed as specifications. 這些是典型屬性，不應被視為規格。

(2) All tests performed on compression molded samples. 所有測試均在壓縮成型樣品上進行。

(3) Dow Method. Test protocols and additional information available upon request. 陶氏方法。可根據要求提供測試協議和其他資訊。

	9500	9507	9530	9807	9817	9900
Description / Key Attributes 描述 /關鍵屬性	General purpose elastomer 通用彈性體	General purpose elastomer 通用彈性體	General purpose elastomer 通用彈性體	Excellent flow and processability 出色的流動性 和加工性	Excellent flow and processability 出色的流動性 和加工性	General purpose elastomer 通用彈性體
	Excellent Haptics 出色的觸感	Excellent flow and processability 優異的流動性 和加工性	Excellent compression set at high temperatures 高溫下優異的 壓縮變形性能	Higher set-up temperature 更高的設定 溫度	Reduced part weight 減輕零件重量	High flow 高流量
	—	Dusted 揮掉灰塵	—	Dusted 揮掉灰塵	Dusted 揮掉灰塵	—
Typical Applications 典型應用	Injection Molding, XL Foams, Over molding on PP and PE, Cast Films 射出成型、 超大泡棉、PP 和 PE 包覆成 型、流延薄膜	Injection Molding, Elastic Films/ Laminates 射出成型、 彈性薄膜 /層壓板	Injection Molding, XL Foams, Elastic Films/ Laminates 射出成型、 超大泡棉、 彈性薄膜 /層壓板	Injection Molding for TPEs, Adhesives TPE、 黏合劑 注塑成型	Injection Molding for TPEs, Adhesives, Elastic Nonwovens TPE、 黏合劑、 彈性不織布 注塑成型	Injection Molding for TPEs, Adhesives, Elastic Nonwovens TPE、 黏合劑、 彈性不織布 注塑成型



		9500	9507	9530	9807	9817	9900
Physical Properties 物理性質							
Melt Index, 熔融指數 g/10 min (2.16 kg @ 190°C)	ASTM D1238	5	5	5	15	15	30
Density 密度, g/cc	ASTM D792	0.877	0.866	0.887	0.866	0.887	0.880
DSC Melting Point, 熔點, °F (°C)	Dow Method(3)	251 (122)	246 (119)	246 (119)	244 (118)	248 (120)	252 (122)
Glass Transition Temperature, 玻璃化轉變溫度, °F (°C)	Dow Method(3)	-80 (-62)	-80 (-62)	-80 (-62)	-80 (-62)	-80 (-62)	-58 (-50)
Mechanical Properties 機械性質							
Hardness, 硬度 Shore A	ASTM D2240	69	60	83	55	71	78 ₍₄₎
Tensile Modulus, 拉伸模量 100%Secant, 割線 psi (MPa)	ASTM D638	331 (2.3)	216 (1.5)	554 (3.8)	189 (1.3)	335 (2.3)	580 (4.0) _(4,5)
Ultimate Tensile Strength, 極限拉伸強度 psi (MPa)	ASTM D638	723 (5.0)	419 (2.9)	1,069 (7.4)	176 (1.2)	355 (2.4)	640 (4.41) _(4,5)
Ultimate Tensile Elongation, 極限拉伸伸長率 %	ASTM D638	1,150	1,210	1,000	1,200	1,540	780 _(4,5)
Ultimate Tensile Strength, 極限拉伸強度 psi (MPa)	ASTM D412	1,378 (10)	1,015 (7)	2,465 (17)	435 (3)	1,015 (7)	735 (5.07) ₍₆₎
Ultimate Tensile Elongation 極限拉伸伸長率 %	ASTM D412	1,600	1,900	1,300	2,200	1,700	870 ₍₆₎
Tear Strength, 撕裂強度 kN/m	ASTM D624	35	22	52	17	31	47.5
Thermal Properties 熱性能							
TMA @ 1.0 mm, °F (°C)	1 N, 5°C/min ₍₃₎	207 (97)	171 (77)	232 (111)	140 (60)	203 (95)	154 (68)
Compression Set 壓縮變形 @ 21°C, %	ASTM D395	22	22	20	16	15	38
Compression Set 壓縮變形 @ 70°C, %	ASTM D395	55	70	45	76	58	98

(1) These are typical properties, not to be construed as specifications. 這些是典型性能，不應被視為規格。

(2) All tests performed on compression molded samples. 所有測試均在模壓成型樣品上進行。

(3) Dow Method. Test protocols and additional information available upon request. 陶氏方法。可根據要求提供測試方案和其他資訊。

(4) Injection molded. 注塑成型

(5) 20 in/min (510 mm/min). 20 英寸/分鐘 (510 毫米/分鐘)

(6) Die C. 模具 C