LABORATORY REPORT

	MATERIAL:	**POLYURETHANE RUBBER**	E-07-C
	COMPOUND:	**UP5007 (U7000AY)**	Date: 4/30/15
	SPEC:	**ASTM D2000 M3BG714 B14 EA14 EO14 Z1**	
Z1	COLOR:	**CLEAR/TRANSPARENT**	

	Original Physical Properties	**Requirements**	**Results**
	Hardness, (Shore A) (ASTM D2240-05)	**70±5**	**70**
	Tensile Strength, psi (MPa) (ASTM D412-06a)	**2031(min)**	**2830(19.52)**
	Elongation, (%) (ASTM D412-06a)	**250(min)**	**510**
	Modulus at 100%,psi (MPa) (ASTM D412-06a)		**349(2.41)**
	Specific Gravity (g/cm³)		**1.168**
B14	**Compression Set, 22 Hrs @ 100°C (ASTM D395-03,Method B)**	**50%(button)(max)**	**37.3**
EA14	**Water Resistance, 70 Hrs @100°C (ASTM D471-12a)**		
	Hardness Change, pts.	**±10**	**-4**
	Tensile Strength Change, %		**-20**
	Elongation Change, %		**-8**
	Volume Change, %	**±15**	**+9.1**
EO14	**IRM 901 Oil, 70 Hrs @ 100°C (ASTM D471-12a)**		
	Hardness Change, pts.	**-7~+5**	**-4**
	Tensile Strength Change, %	**-20(max)**	**-18**
	Elongation Change, %	**-40(max)**	**-7**
	Volume Change, %	**-5~+10**	**+6.8**

APPROVAL Dennis	**AUDIT Ru-Ling Liu**	**REPORT Reachel**
(Lab Manager)	**(Chemical Engineer)**	**(Laboratory Specialist)**

Seneca Rubber Technologies

LABORATORY REPORT

	MATERIAL:	**POLYURETHANE RUBBER**	E-07-C
	COMPOUND:	**UP5009 (U9000AY)**	Date: 10/21/15
	SPEC:	**ASTM D2000 M3BG910 B14 EA14 EO14 F19 Z1 Z2**	
Z1	COLOR:	**CLEAR/TRANSPARENT**	

	Original Physical Properties	**Requirements**	**Results**
	Hardness, (Shore A) (ASTM D2240-04)	**90±5**	**89**
	Tensile Strength, psi (MPa) (ASTM D412-06a)	**1450(min)**	**2548(17.57)**
	Elongation, (%) (ASTM D412-06a)	**100(min)**	**263**
	Modulus at 100%,psi (MPa) (ASTM D412-06a)		**1193(8.23)**
	Specific Gravity (g/cm³)		**1.229**
B14	**Compression Set, 22 Hrs @ 100℃ (ASTM D395-03,Method B)**	**50%(button)(max)**	**30.1**
EA14	**Water Resistance, 70Hrs@100℃ (ASTM D471-12a)**		
	Hardness Change, pts.	**±10**	**-6**
	Tensile Strength Change, %		**-10**
	Elongation Change, %		**+11**
	Volume Change, %	**±15**	**+9.1**
EO14	**IRM 901 Oil, 70 Hrs @ 100℃ (ASTM D471-12a)**		
	Hardness Change, pts.	**-7~+5**	**-4**
	Tensile Strength Change, %	**-20(max)**	**-15**
	Elongation Change, %	**-40(max)**	**0**
	Volume Change, %	**-5~+10**	**+5.8**
F19	**Low-Temperature Brittleness Point Test,3 min at-55 ℃ (ASTM D2137-05, Method A)**		
	Sample type: T-50		
	Coolant : Isopropyl alcohol		
	Brittleness temperature to nearest 1℃	**no crack**	**pass**
Z2	**Low Temperature Retraction Test (TR Test) (ASTM D1329-08)**		
	Testing Elongation 50%		
	The Equipment of measure temperature: thermocouple		
	Length of Sample: 51 mm		
	Rate of Temperature increasing: 1℃/min		
	Test Temperature: 26 ℃		
	Coolant : Methanol		
	TR10, ℃		**-54.9**

APPROVAL Dennis	**AUDIT Ru-Ling Liu**	**REPORT Reachel**
(Lab Manager)	**(Chemical Engineer)**	**(Laboratory Specialist)**