GMORS®
Seals to your heart

Ge Mao Rubber Industrial Co., Ltd.
No. 15, Kung Yeh East 4th Road, Lukang, Chang Hua, Taiwan, R. O. C.
TEL：+886-4-7810288 (REP)　FAX：+886-4-7810289
Website:https://www.gmors.com　E-Mail:rubber@gmors.com.tw
ISO 9001 · IATF 16949 · AS 9100 CERTIFIED · ISO 13485 PRODUCTS SUPPLIED

LABORATORY REPORT

MATERIAL： **ETHYLENE PROPYLENE** **E-07-D**
COMPOUND： **E9053AA** **DATE：Feb/14/2019**
SPEC.： **ASTM D2000 M3DA910 A26 B36 EA14 G11 G21 F19 Z1 Z2 Z3 Z4**
Z1=No Odor, No Taste, WRAS approval
Z2=Antimircobial
Z4=Service Temperature -55℃ ~ +125℃
COLOR： **BLACK**

	Original Physical Properties	Requirements	Results
	Hardness, (Shore A) (ASTM D2240-15$^{\varepsilon 1}$)	90±5	89
	Tensile Strength, psi (MPa) (ASTM D412-16)	1450(min)	1924(13.27)
	Elongation, (%) (ASTM D412-16)	100(min)	102
	Modulus at 100%,psi (MPa) (ASTM D412-16)		981(6.76)
	Density, (Mg/m^3) (CNS 5341-96, Method A)		1.226
G11	Tear resistance, (ASTM D624-00)	17kN/m(Die B)(min)	25.40
G21	Tear resistance, (ASTM D624-00)	17kN/m(Die C)(min)	21.62
A26	Heat Age, 70 Hrs @ 150℃ (ASTM D865-99)		
	Hardness Change, pts	+10(max)	+3
	Tensile Strength Change, %	-20(max)	-4
	Elongation Change, %	-20(max)	+2
	Weight Change, %		+1.1
B36	Compression Set, 22 Hrs @ 150℃ (ASTM D395-18,Method B)	25%(plied)(max)	15.1
EA14	Water Resistance, 70 Hrs @100℃ (ASTM D471-16a)		
	Hardness Change, pts		-3
	Tensile Strength Change, %		-4
	Elongation Change, %		+5
	Volume Change, %	±5	+2.1
F19	Low-Temperature Brittleness Point Test,3 min at-55 ℃ (ASTM D2137-11,Method C)		
	Sample type: T-50		
	Coolant : Isopropyl alcohol		
	Low Temperature Property	no crack	pass
Z3	Low Temperature Retraction Test (TR Test) (ASTM D1329-16)		
	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, ℃		-42

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