ANYORING

TEST REPORT
MATERIAL: SIL 30 DURO RED

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @200°C x 4 hrs

Property	Requirement	Test Result
Hardness (Shore A)	30 +/-5	30
Tensile Strength (MPa)	min 5.0	8.7
Elongation (%)	min 400	698
Specific Gravity	-	1.089

B) HEAT RESISTANCE @225°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+7
Tensile Strength Change (%)	-25	-23

Elongation Change (%)	**-30**	**+8**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 20 min**
- **Post Cure @200°C x 4 hrs**
- **Heat Aging @175°C x 22 hrs**

Property	Requirement	Test Result
Compression Set (%)	**max 25**	**19**

D) ASTM NO.1 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**0~-10**	**-8**
Tensile Strength Change (%)	**-30**	**-17**
Elongation Change (%)	**-30**	**+8**
Volume Change (%)	**0~+15**	**+8**

E) ASTM NO.3 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Volume Change (%)	+60	+58

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M2GE305 A19 B37 EO16 EO36.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: EP 40 DURO BLACK

A) PHYSICAL PROPERTIES (PRESS CURE @170°C x 10 min)

Property	Requirement	Test Result
Hardness (Shore A)	40 +/-5	44
Tensile Strength (MPa)	min 10	12.1
Elongation (%)	min 400	566
Specific Gravity	-	1.09

B) HEAT AGING @125°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+4
Tensile Strength Change (%)	-20	-2
Elongation Change (%)	-40	-15

C) COMPRESSION SET

Property	Requirement	Test Result
Heat Aging @125°C x 22 hrs (%)	max 70	34

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M2CA410 A25 B35.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: NBR 40 DURO BLACK

A) PHYSICAL PROPERTIES (PRESS CURE @170°C x 10 min)

Property	Requirement	Test Result
Hardness (Shore A)	40 +/-5	44
Tensile Strength (MPa)	min 7.0	8.7
Elongation (%)	min 450	672
Specific Gravity	-	1.203

B) HEAT RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+/-15	+2
Tensile Strength Change (%)	-20	+9
Elongation Change (%)	-40	-5

C) COMPRESSION SET @100°C x 70 HRS

Property	Requirement	Test Result
Set (%)	max 25	15

D) NO.1 OIL RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	-5~+15	+8
Tensile Strength Change (%)	-25	+39

Elongation Change (%)	-45	-5
Volume Change (%)	-10~+5	-9

E) NO.3 OIL RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	0~-15	-3
Tensile Strength Change (%)	-45	-2
Elongation Change (%)	-45	-11
Volume Change (%)	0~+35	+1

NOTE:

1. The above tests were conducted on a test piece and are for reference only.
2. This compound N4001B meets ASTM D2000 M5BG407 A14 B14 EO14 EO34.

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: FKM 60 BLACK

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @230°C x 24 hrs

Property	Requirement	Test Result
Hardness (Shore A)	60 +/-5	62
Tensile Strength (MPa)	min 7.0	9.2
Elongation (%)	min 200	241
Specific Gravity	-	1.801

B) HEAT AGING @250°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+1
Tensile Strength Change (%)	-25	+7

Elongation Change (%)	**-25**	**+3**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 20 min**
- **Post Cure @230°C x 24 hrs**

Property	Requirement	Test Result
Heat Aging @175°C x 22 hrs (%)	**max 50**	**5**

D) FUEL C OIL IMMERSION @RT x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**+/-5**	**-4**
Tensile Strength Change (%)	**-25**	**-24**
Elongation Change (%)	**-20**	**-19**
Volume Change (%)	**0~+10**	**+4**

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound V6001B meets ASTM D2000 M2HK607 A1-10 B37 EF31.**
3. **Temperature Range: -15°C to 200°C (suitable for heat air aging; other media do not apply).**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: EP 70 DURO BLACK

A) PHYSICAL PROPERTIES (PRESS CURE @170°C x 10 min)

Property	Requirement	Test Result
Hardness (Shore A)	70 +/-5	74
Tensile Strength (MPa)	min 10	11.4
Elongation (%)	min 200	410
Specific Gravity	-	1.097

B) HEAT AGING @125°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+2
Tensile Strength Change (%)	-20	+5
Elongation Change (%)	-40	-29

C) COMPRESSION SET

Property	Requirement	Test Result
Heat Aging @125°C x 22 hrs (%)	max 70	55
Heat Aging @70°C x 22 hrs (%)	max 25	11

D) WATER RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Volume Change (%)	+/-5	+4

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M4CA710 A25 B35 EA14.**
3. **Temperature Range: -40°C to 100°C.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: SIL 70 DURO RED

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @200°C x 4 hrs

Property	Requirement	Test Result
Hardness (Shore A)	70 +/-5	72
Tensile Strength (MPa)	min 5.0	6.8
Elongation (%)	min 150	199
Tear Strength (KN/m)	min 9.0	10
100% Modulus (MPa)	-	3.2
Specific Gravity	-	1.314

B) HEAT RESISTANCE @225°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+2

Tensile Strength Change (%)	**-25**	**+4**
Elongation Change (%)	**-45**	**-22**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 20 min**
- **Post Cure @200°C x 4 hrs**
- **Heat Aging @175°C x 22 hrs**

Property	Requirement	Test Result
Compression Set (%)	**max 30**	**19**

D) WATER RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**+/-5**	**+2**
Volume Change (%)	**+/-5**	**+2**

E) ASTM NO.1 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	0~-15	-6
Tensile Strength Change (%)	-20	+28
Elongation Change (%)	-20	+20
Volume Change (%)	0~+15	+3

F) ASTM NO.3 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	-40	-22
Volume Change (%)	+60	+35

G) LOW TEMPERATURE BRITTLENESS

Property	Requirement	Test Result
Test after 3 min at -55°C	-	Non-Brittle

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M7GE705 A19 B37 EA14 EO16 EO36 F19 G11 Z1.**
3. **Temperature Range: -55°C to 180°C.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: FKM 75 BLACK

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @230°C x 24 hrs

Property	Requirement	Test Result
Hardness (Shore A)	75 +/-5	77
Tensile Strength (MPa)	min 10.0	12.3
Elongation (%)	min 150	184
Specific Gravity	-	1.816

B) HEAT AGING @250°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+5
Tensile Strength Change (%)	-25	+9

Elongation Change (%)	**-25**	**-11**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 10 min**
- **Post Cure @230°C x 24 hrs**

Property	Requirement	Test Result
Heat Aging @175°C x 22 hrs (%)	**max 50**	**12**

D) FUEL C OIL IMMERSION @RT x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**+/-5**	**+3**
Tensile Strength Change (%)	**-25**	**+2**
Elongation Change (%)	**-20**	**+7**
Volume Change (%)	**0~+10**	**+4**

E) LOW TEMPERATURE BRITTLENESS

Property	Requirement	Test Result

Test after 3 min at -20°C	**-**	**Non-Brittle**

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound V7501B meets ASTM D2000 M2HK810 A1-10 B37 EF31.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: EP 80 DURO BLACK

A) PHYSICAL PROPERTIES (PRESS CURE @170°C x 10 min)

Property	Requirement	Test Result
Hardness (Shore A)	80 +/-5	83
Tensile Strength (MPa)	min 10	12.9
Elongation (%)	min 150	322
Specific Gravity	-	1.159

B) HEAT AGING @125°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+2
Tensile Strength Change (%)	-20	+12
Elongation Change (%)	-40	-39

C) COMPRESSION SET

Property	Requirement	Test Result
Heat Aging @125°C x 22 hrs (%)	max 70	68

D) WATER RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Volume Change (%)	+/-5	+4

E) LOW TEMPERATURE BRITTLENESS

Property	Requirement	Test Result
Test after 3 min at -35°C	-	Non-Brittle

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound E8001B meets ASTM D2000 M7CA810 A25 B35 EA14 F16.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: SIL 80 DURO RED

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @200°C x 4 hrs

Property	Requirement	Test Result
Hardness (Shore A)	80 +/-5	84
Tensile Strength (MPa)	min 6.0	6.8
Elongation (%)	min 100	163
Specific Gravity	-	1.436

B) HEAT RESISTANCE @225°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+4
Tensile Strength Change (%)	-25	-3

Elongation Change (%)	**-30**	**-28**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 20 min**
- **Post Cure @200°C x 4 hrs**
- **Heat Aging @175°C x 22 hrs**

Property	Requirement	Test Result
Compression Set (%)	**max 25**	**16**

D) ASTM NO.1 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**0~-15**	**-6**
Tensile Strength Change (%)	**-20**	**-13**
Elongation Change (%)	**-20**	**-20**
Volume Change (%)	**0~+10**	**+5**

E) ASTM NO.3 OIL @150°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	-30	-24
Volume Change (%)	+60	+33

F) LOW TEMPERATURE BRITTLENESS

Property	Requirement	Test Result
Test after 3 min at -55°C	-	Non-Brittle

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M5GE806 A19 B37 EO16 EO36 F19.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: FKM 90 BLACK

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @230°C x 24 hrs

Property	Requirement	Test Result
Hardness (Shore A)	90 +/-5	92
Tensile Strength (MPa)	min 10.0	12.9
Elongation (%)	min 100	152
Specific Gravity	-	1.84

B) HEAT AGING @250°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+10	+1
Tensile Strength Change (%)	-25	+2

Elongation Change (%)	**-25**	**-24**

C) COMPRESSION SET

Curing Conditions:

- **Press Cure @170°C x 10 min**
- **Post Cure @230°C x 24 hrs**

Property	Requirement	Test Result
Heat Aging @175°C x 22 hrs (%)	**max 30**	**9**

D) FUEL C OIL IMMERSION @RT x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**+/-5**	**-4**
Tensile Strength Change (%)	**-25**	**-19**
Elongation Change (%)	**-20**	**-16**
Volume Change (%)	**0~+10**	**+3**

E) LOW TEMPERATURE BRITTLENESS

Property	Requirement	Test Result

Test after 3 min at -20°C	**-**	**Non-Brittle**

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M2HK810 A1-10 B37 EF31.**

ANYORINGS

ANYORING

TEST REPORT
MATERIAL: NBR 90 DURO BLACK

Batch No.: 2M01907260001

A) PHYSICAL PROPERTIES

Press Cure: @170°C x 10 min
Post Cure: @120°C x 1 hr

Property	Requirement	Test Result
Hardness (Shore A)	90 +/-5	85
Tensile Strength (MPa)	min 10	12.2
Elongation (%)	min 100	208
Specific Gravity	-	1.34

B) HEAT RESISTANCE @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	+15	+2
Tensile Strength Change (%)	-20	+3
Elongation Change (%)	-40	-19

C) COMPRESSION SET

Curing Conditions:
Press Cure: @170°C x 12 min
Post Cure: @120°C x 1 hr
Heat Aging: @100°C x 22 HRS

Property	Requirement	Test Result

Compression Set (%)	**max 25**	**18**

D) ASTM NO.1 OIL IMMERSION @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**-5~+15**	**+4**
Tensile Strength Change (%)	**-25**	**+7**
Elongation Change (%)	**-45**	**-22**
Volume Change (%)	**-10~+5**	**-4**

E) ASTM IRM 903 OIL IMMERSION @100°C x 70 HRS

Property	Requirement	Test Result
Hardness Change (Points)	**0~-20**	**-9**
Tensile Strength Change (%)	**-45**	**-1**
Elongation Change (%)	**-45**	**-17**
Volume Change (%)	**0~+35**	**+10**

NOTE:

1. **The above tests were conducted on a test piece and are for reference only.**
2. **This compound meets ASTM D2000 M6BG910 A14 B14 EO14 EO34.**

ANYORINGS

TEST REPORT
MATERIAL: NBR 70 DURO BLACK

A) PHYSICAL PROPERTIES:

Batch No: 1900500924
Press Cure: @170°C x 10 min
Post Cure: @150°C x 1 hr

Property	Requirement	Test Result
Hardness (Shore A)	70 +/-5	70
Tensile Strength (MPa)	min 14	15.6
Elongation (%)	min 250	389
Specific Gravity	-	1.22

B) HEAT RESISTANCE (ASTM D573 @100°C x 70 HRS)

Property	Requirement	Test Result
Hardness Change (Points)	+/-15	+3
Tensile Strength Change (%)	+/-30	+1
Elongation Change (%)	-50	-20

C) COMPRESSION SET (ASTM D395)

Heat Aging @100°C x 22HRS, % max:

Property	Requirement	Test Result
Compression Set (%)	max 25	14

D) OIL IMMERSION TESTS (ASTM D471 @100°C x 70 HRS)

No.1 Oil Immersion

Property	Requirement	Test Result
Hardness Change (Points)	-5~+10	+6
Tensile Strength Change (%)	-25	+12
Elongation Change (%)	-45	-7
Volume Change (%)	-10~+5	-8

IRM 903 Oil Immersion

Property	Requirement	Test Result
Hardness Change (Points)	-10~+5	-2
Tensile Strength Change (%)	-45	+4
Elongation Change (%)	-45	-9
Volume Change (%)	0~+25	+3

E) WATER RESISTANCE (ASTM D471 @100°C x 70 HRS)

Property	Requirement	Test Result
Hardness Change (Points)	+/-10	-7
Volume Change (%)	+/-15	+14

F) FUEL RESISTANCE (ASTM D471 @23°C x 70 HRS)

Fuel A Resistance

Property	Requirement	Test Result
Hardness Change (Points)	+/-10	-7
Tensile Strength Change (%)	-25	-11

Elongation Change (%)	-25	-12
Volume Change (%)	-5~+10	+8

Fuel B Resistance

Property	Requirement	Test Result
Hardness Change (Points)	0~-30	-16
Tensile Strength Change (%)	-60	-32
Elongation Change (%)	-60	-33
Volume Change (%)	0~+40	+25

G) LOW TEMPERATURE TESTS

Property	Requirement	Test Result
TR-10 (Low Temperature)	-	-27.8°C
Low Temperature Brittleness (ASTM D2137, -35°C, 3 min)	-	Non-Brittle

NOTE:

1. The above tests were conducted on a test piece and are for reference only.
2. This compound N7001B meets ASTM D2000 M2BG714 A14 B14 EA14 EO14 EO34 EF11 EF21 F16.
3. **Operating Temperature Range:** -30°C to 100°C.

Anyorings