

Product Catalogue

HIGH PERFORMANCE RUBBER SHEET



ChangRubber[®]

Chang Rubber Development Co.,Ltd.

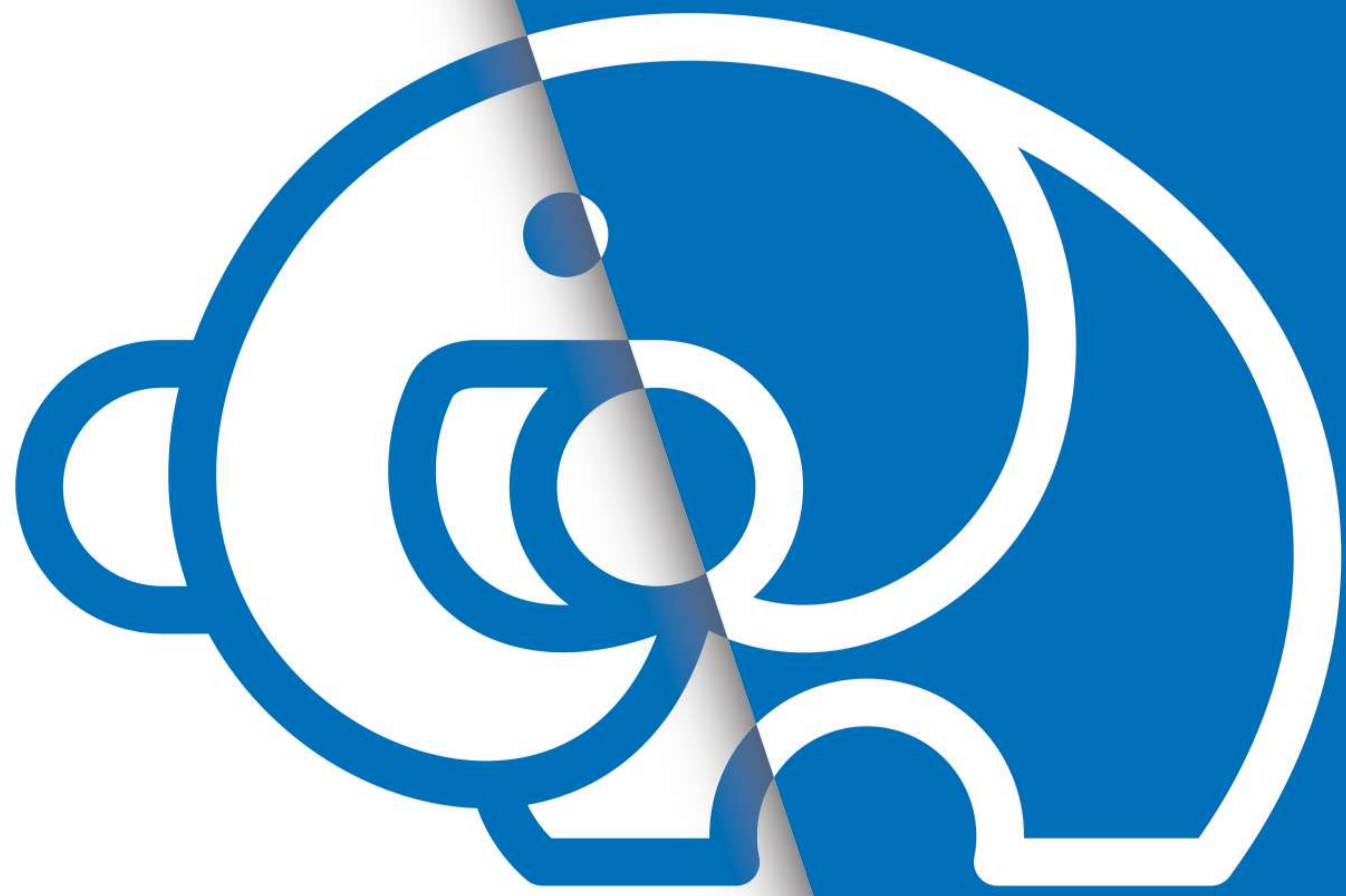
100% Made in Thailand

EPDM Rubber Sheet

HIGH PERFORMANCE RUBBER SHEET

NR Rubber Sheet

Product



ChangRubber[®]

Catalogue

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Welcome

HIGH PERFORMANCE RUBBER SHEET

ChangRubber high performance rubber sheet, a leading brand in high performance elastomer rubber sheet. With the continuously improving of technologies in today's manufacturing environment, we foreseen the demand for high performance rubber sheet will be increased for these challenging environment. Our manufacturing plants is strategically located in Chonburi, Thailand, where this strategic location allow us to direct access to pure and high quality virgin raw material as it is surrounded with a vast area of rubber plantation. All our skillful R&D staff are well trained by professional and know how on the equipment operations, our full range of R&D equipment are with latest technologies. ChangRubber has developed a series of top notch series of high performance rubber sheet for today's high challenging environment requirement for rubber sheet. Starting from automated weighing machine system, we make sure each and every batch of our final product are with consistency. Our latest technology compounding machine and calendaring machine ensure every single finished product are with highest quality. ChangRubber series of high performance rubber sheet cover a full range of today's environment requirement for oil resistance, chemical resistant, concentrate acid resistant, flame retardant, high abrasion, high temperature resistant, ozone and weather resistant. ChangRubber series of high performance rubber sheet are widely used in various industry ie: mining, oil and gas, cement silo, gasket, rubber lining, chemical tank, automotive, food processing, power plant and etc.

100% Made in Thailand



ChangRubber[®]

Chang Rubber Development Co.,Ltd.

MATERIAL SPECIFICATIONS



FEATURES

- Standard Width : 1250mm
- Width Range : 100mm - 2000mm
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black, Red, Grey
- Work Temperature : +80 °C

ChangExp NR

Natural rubber high abrasion rubber sheet further enhanced physical property of natural rubber for abrasion resistant, this high abrasion rubber sheet are excellent used in applications where excessive cuts, abrasion or wear & tear occur. Great impact resistance that used as cushioning resistance in matting applications. It's resistance to chemical make it perfect rubber lining for chemical tank.

Specially designed for applications where high abrasion resistance is required, compounded from premium natural rubber for better abrasion, impact and corrosion resistance. Pure natural rubber exhibits high strength, elasticity, excellent cut and tear resistance, resulting in outstanding performance in heavy wear and abrasion environments like the mining & quarry industries.

Advantage

- Superior abrasion resistance
- Excellent resistance to impact, cut and tear
- Outstanding tensile strength
- High resilience

Applications

- Tank lining
- Slurry handling
- Pipe lining
- Pump Liner
- Chute lining
- Valve liner
- Belting
- Hydrocyclones liner
- Skirt board
- Pulley cover

CHANG RUBBER DEVELOPMENT CO., LTD.



NATURAL RUBBER (NR) (THNR0972537)



MATERIAL SPECIFICATIONS

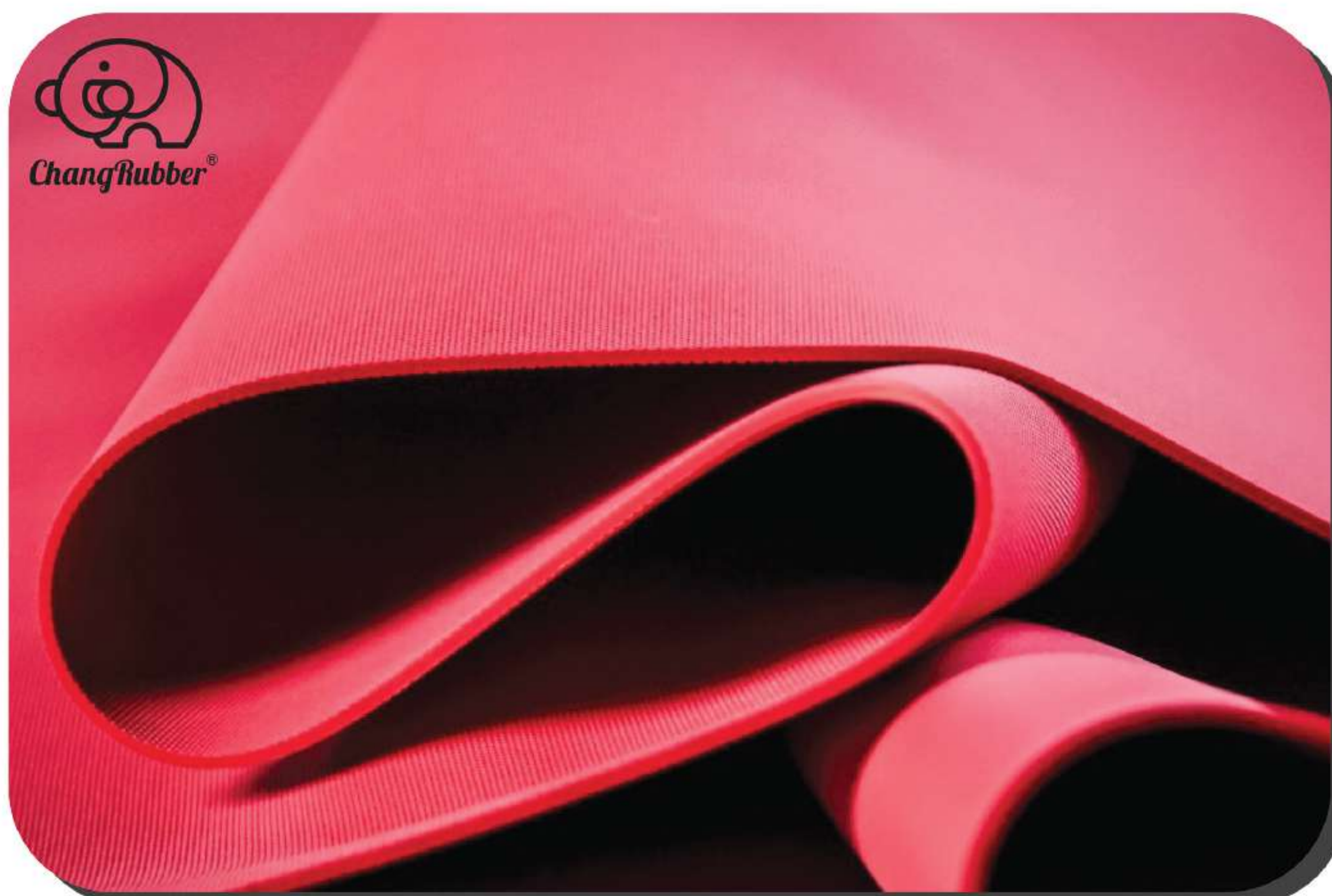
| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 0.97 | g/cm ³ |
| Hardness | ASTM D2240 | 37 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 25 | MPa |
| Elongation | ASTM D-412 | 800 | % |
| Tear Strength | ASTM D-624 | 45 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 30 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|--------|
| In Air | -40 °C | +70 °C |
| In Oil | | - |
| In Water | | +80 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|-----------|-------|------------|-------|
| Excellent | Excellent | Excellent | Poor | Unsuitable | Poor |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

Very good mechanical and technical characteristics



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 0.98 | g/cm ³ |
| Hardness | ASTM D2240 | 38 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 24 | MPa |
| Elongation | ASTM D-412 | 750 | % |
| Tear Strength | ASTM D-624 | 40 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 30 | % |







WORKING TEMPERATURE

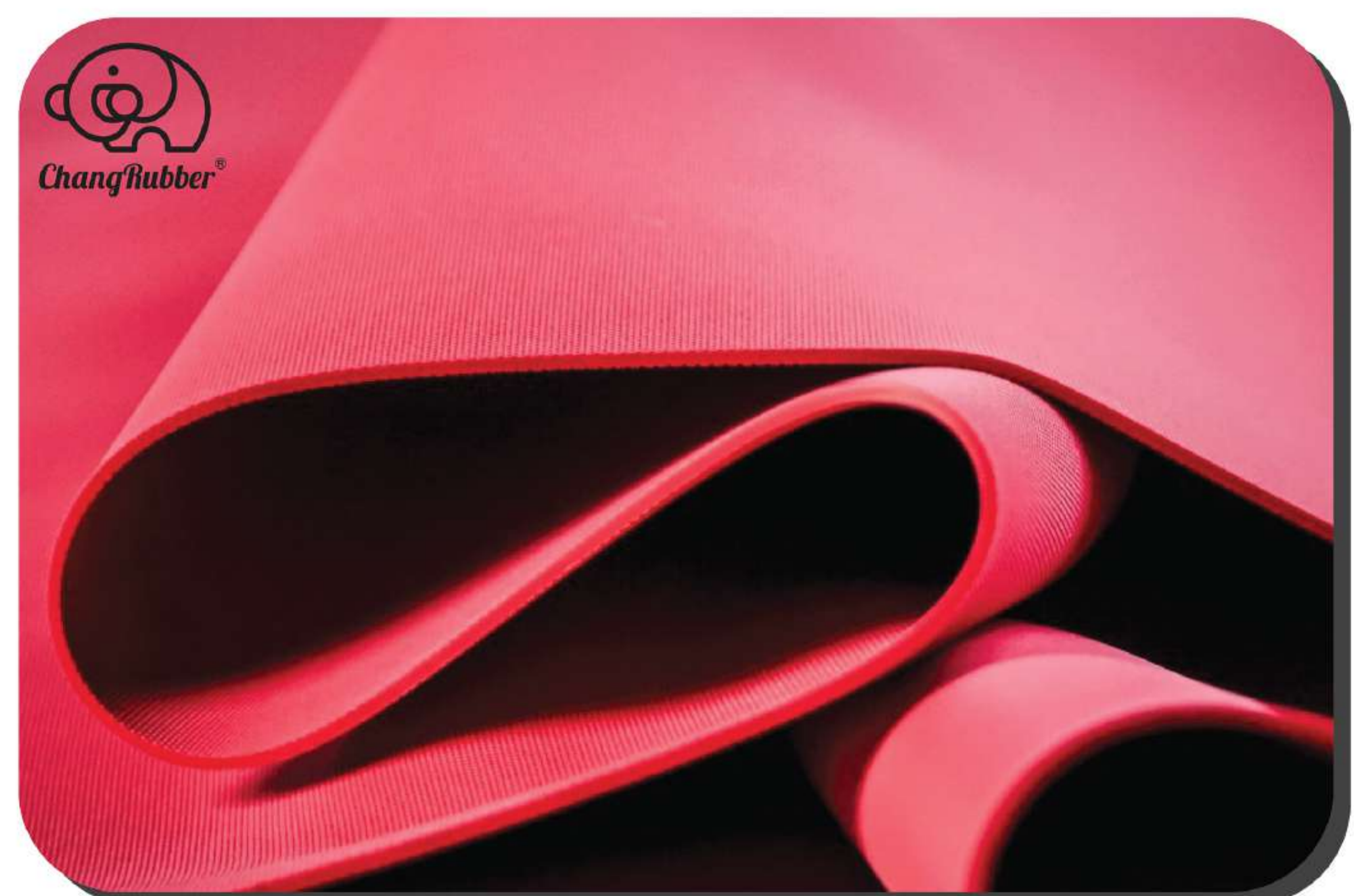
| | | |
|----------|--------|--------|
| In Air | -40 °C | +70 °C |
| In Oil | | - |
| In Water | | +80 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|-----------|-------|------------|-------|
| Excellent | Excellent | Excellent | Poor | Unsuitable | Poor |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



Very good mechanical and technical characteristics



NATURAL RUBBER (NR) (THNR1051860)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.05 | g/cm ³ |
| Hardness | ASTM D2240 | 60 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 18 | MPa |
| Elongation | ASTM D-412 | 600 | % |
| Tear Strength | ASTM D-624 | 50 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 35 | % |

WORKING TEMPERATURE







| | | |
|----------|--------|--------|
| In Air | -40 °C | +70 °C |
| In Oil | | - |
| In Water | | +70 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|-----------|-------|------------|-------|
| Excellent | Excellent | Excellent | Poor | Unsuitable | Poor |



Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request

Very good mechanical and technical characteristics



MATERIAL SPECIFICATIONS

📌 ChangExp NBR

Nitrile rubber known as NBR, Buna-N and acrylonitrile butadiene rubber is a synthetic rubber copolymer elastomer. NBR rubber are widely used in automotive and aeronautical industry to make fuel and oil seals, self-sealing fuel tanks lining. NBR ability to withstand range of temperatures from -20 to +110 Celsius make it an ideal material for aeronautical applications.

ChangExp NBR rubber sheet is a nitrile base rubber sheet, providing excellent resistance to petroleum oils as well as mineral and vegetable oils. NBR rubber material is used in applications involving not only oil and fuel resistance but also those applications requiring resistance to heat, abrasion, water and gas permeability. It is resistant to weathering, sunlight and ozone. From oil rigs to bowling alleys, nitrile rubber can be the right material for your applications.

Advantage

- Excellent oil resistant
- Good resistance to heat and aging
- Good impermeability to gases
- Good abrasion resistance

Applications

- Carburetor and fuel pump diaphragms
- Chemical container lining
- Seal and gasket
- Aircraft hoses



📦 FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10mm
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : +110 °C

CHANG RUBBER DEVELOPMENT CO., LTD.



NITRILE BUTADIENE RUBBER (NBR) (THNBR1261360)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.26 | g/cm ³ |
| Hardness | ASTM D2240 | 60 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 13 | MPa |
| Elongation | ASTM D-412 | 350 | % |
| Tear Strength | ASTM D-624 | 30 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 20 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -40 °C | +125 °C |
| In Oil | | +100 °C |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Good | Poor | Poor | Good | Fair |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

Good oil and greases resistance



NITRILE BUTADIENE RUBBER (NBR) (THNBR145565)

MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 17 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |







WORKING TEMPERATURE

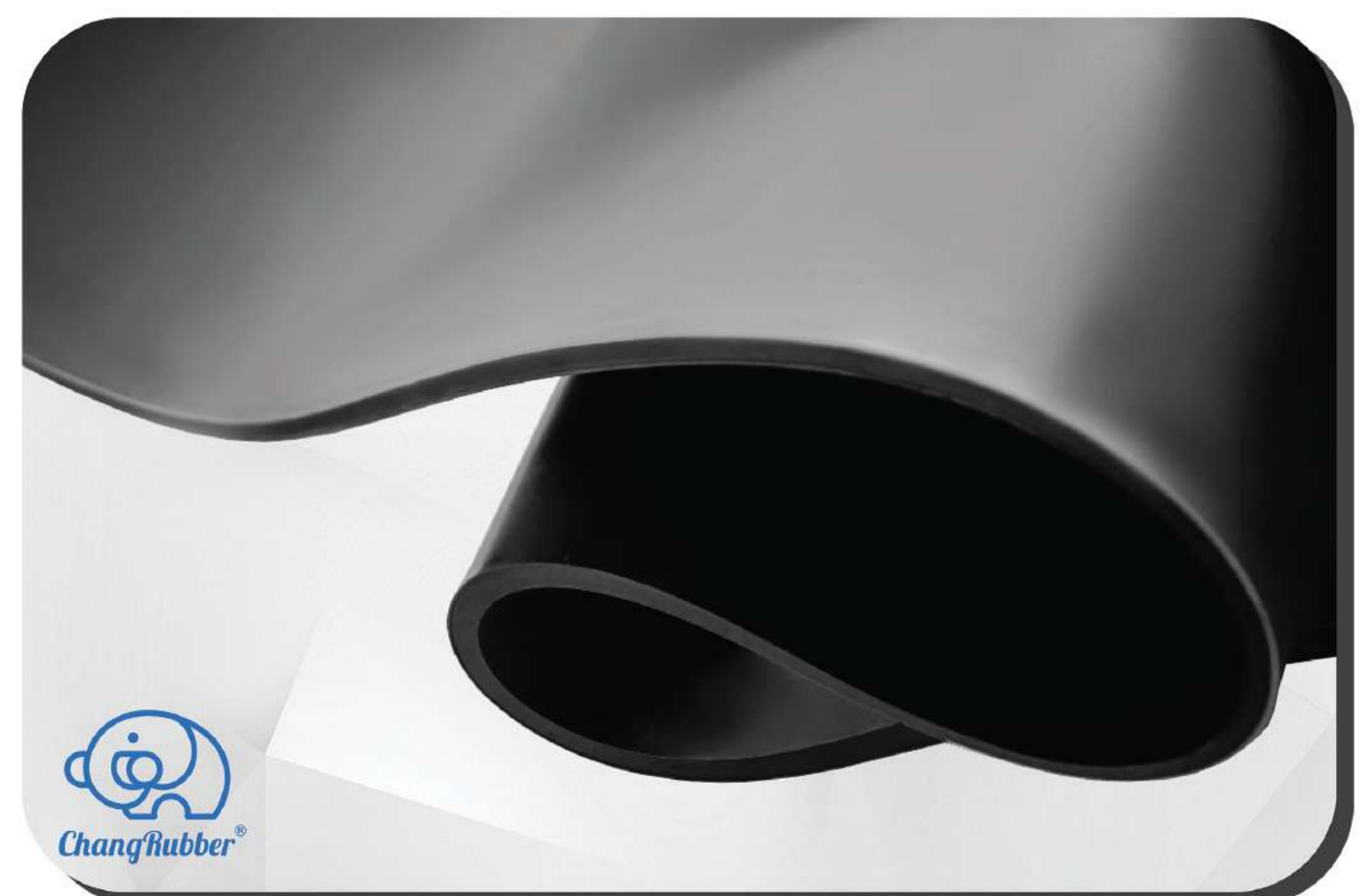
| | | |
|----------|--------|---------|
| In Air | -40 °C | +120 °C |
| In Oil | | +100 °C |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Fair | Poor | Poor | Good | Fair |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



Good oil and greases resistance



NITRILE BUTADIENE RUBBER (NBR) (THNBR145550)



MATERIAL SPECIFICATIONS

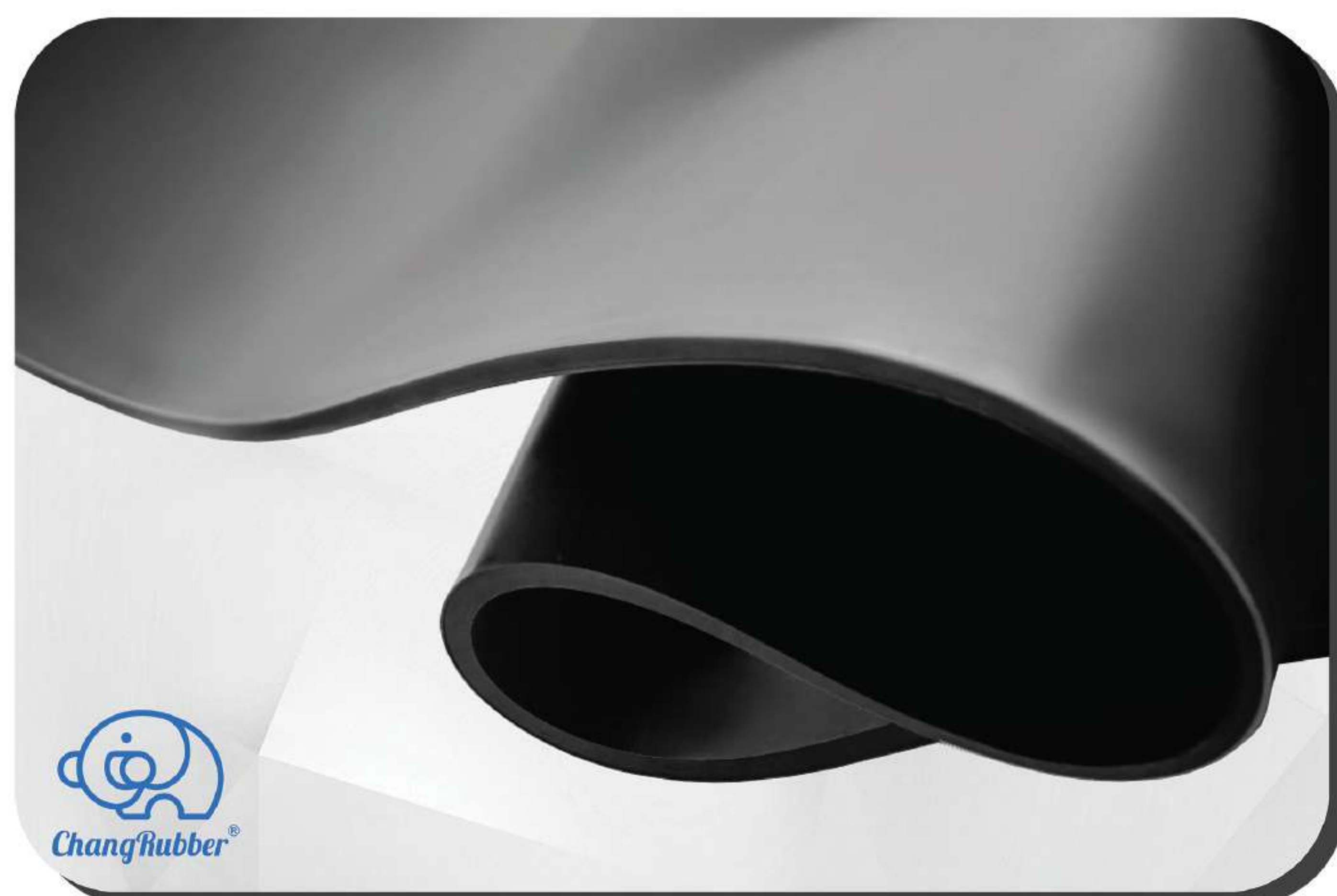
| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 50 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 15 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE







| | | |
|----------|--------|---------|
| In Air | -40 °C | +120 °C |
| In Oil | | +100 °C |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Fair | Poor | Poor | Good | Fair |



Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request

Good oil and greases resistance



NITRILE BUTADIENE RUBBER (NBR) (THNBR145665W)

MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 6 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 20 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -40 °C | +125 °C |
| In Oil | | +100 °C |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Good | Poor | Poor | Good | Fair |

Note:

- ☞ All colors available.
- ☞ Cloth insertion, nylon insertion available.
- ☞ Cloth impression finish available.
- ☞ Specification and size on the customer's request.
- ☞ Test methods accord with ISO standard
- ☞ New product formula can be designed by request



Good oil and greases resistance



NITRILE BUTADIENE RUBBER (NBR) (THNBR145580)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 80 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -40 °C | +120 °C |
| In Oil | | +100 °C |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Fair | Poor | Poor | Good | Fair |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

Good oil and greases resistance



MATERIAL SPECIFICATIONS

“ ChangExp EPDM

EPDM (Ethylene Propylene Diene monomer) rubber is a type of synthetic rubber, this elastomer is widely use in most of the outdoor application and for chemical and high temperature resistant application. EPDM also exhibits outstanding resistance to Ozone, Steam, and also an electrical insulator. EPDM rubber is widely use as roofing membranes, since it does not pollute the run off rain water, this EPDM rubber sheet is also use in rainwater harvesting. EPDM rubber sheets are also use as geomembranes, rubber mechanical goods, impact modification, seals for solar panel, hose vibrators and pond liners.

ChangExp EPDM rubber sheet is resistant to aging, water, abrasion, UV and ozone, which makes it perfect material to use under exposed environment. They are highly recommended at areas where surface is exposed to weather, sunlight, heat, ozone or gasses. EPDM rubber sheet is also ideal for use in water and is often considered the material of choice for potable water applications.

”

Advantage

- Superior resistance to water and steam
- Highly resistive from sunlight, ozone and UV radiation
- Very good flexibility at low temperatures

Applications

- Window seals
- Automobile beading
- Rubber beading, pads & profiles
- Man-way gaskets
- Low pressure pipe seals
- Weather strips



FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10m
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : +120 °C

CHANG RUBBER DEVELOPMENT CO., LTD.



ETHYLENE PROPYLENE DIENE RUBBER (EPDM) (THEP1151465)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.15 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 14 | MPa |
| Elongation | ASTM D-412 | 400 | % |
| Tear Strength | ASTM D-624 | 35 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 20 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -30 °C | +150 °C |
| In Oil | | - |
| In Water | | +150 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|------------|-------|
| Good | Good | Poor | Poor | Unsuitable | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Resistant to weathering and ozone,
as well as to many diluted
acids and weak leaches**



ETHYLENE PROPYLENE DIENE RUBBER (EPDM) (THEP135665)







MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.35 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 6 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

| WORKING TEMPERATURE | | | |
|---------------------|--|--------|--------|
| In Air | | -30 °C | +90 °C |
| In Oil | | | - |
| In Water | | | +90 °C |

| MAIN CHARACTERISTICS | | | | | |
|----------------------|-------------|----------|-------|------------|-------|
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Fair | Poor | Poor | Unsuitable | Good |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



Resistant to weathering and ozone,
as well as to many diluted
acids and weak leaches



ETHYLENE PROPYLENE DIENE RUBBER (EPDM) (THEP130865W)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.30 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 8 | MPa |
| Elongation | ASTM D-412 | 300 | % |
| Tear Strength | ASTM D-624 | 25 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -30 °C | +120 °C |
| In Oil | | - |
| In Water | | +120 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|------------|-------|
| Good | Fair | Poor | Poor | Unsuitable | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Resistant to weathering and ozone,
as well as to many diluted
acids and weak leaches**









ETHYLENE PROPYLENE DIENE RUBBER (EPDM) (THEP135650)

MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT | | |
|--|--------------------|-----------------|-------------------|--------------|--------------|
| Specific Gravity | ASTM D297 | 1.35 | g/cm ³ | | |
| Hardness | ASTM D2240 | 50 +/-5 | Shore A | | |
| Tensile Strength | ASTM D-412 | 6 | MPa | | |
| Elongation | ASTM D-412 | 250 | % | | |
| Tear Strength | ASTM D-624 | 18 | kgf/cm | | |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % | | |
| WORKING TEMPERATURE | | | | | |
| In Air | | -30 °C | +90 °C | | |
| In Oil | | | - | | |
| In Water | | | +90 °C | | |
| MAIN CHARACTERISTICS | | | | | |
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Fair | Poor | Poor | Unsuitable | Good |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



**Resistant to weathering and ozone,
as well as to many diluted
acids and weak leaches**



ETHYLENE PROPYLENE DIENE RUBBER (EPDM) (THEP140680)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.40 | g/cm ³ |
| Hardness | ASTM D2240 | 80 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 6 | MPa |
| Elongation | ASTM D-412 | 225 | % |
| Tear Strength | ASTM D-624 | 25 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -30 °C | +120 °C |
| In Oil | | - |
| In Water | | +120 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|------------|-------|
| Good | Fair | Poor | Poor | Unsuitable | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Resistant to weathering and ozone,
as well as to many diluted
acids and weak leaches**



MATERIAL SPECIFICATIONS

Chang FDA

ChangFG rubber sheet is made from FDA approved material. ChangRubber follow strictly FDA rules and guidelines to ensure that all our good grade rubber sheet does not contain any prohibited additives or pigments. Our comprehensive manufacturing process has led us to develop a non toxic sheet with high strength, elasticity and abrasion resistance for food/ bakery industry, whilst fully compliant with strict food quality protocols. We offer food grade products in NBR, EPDM, CR and NR

Advantage

- None toxic
- Excellent resistance to impact, cut and tear
- Outstanding tensile strength
- High resilience

Applications

- Food processing
- Food packaging
- Bakery industry
- Gasket and other various type of food grade seals
- Pharmaceuticals and cosmetics industry



FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10m
- Length : 10m
- Thickness : From 1mm to 20mm
- Standard Color : White
- Work Temperature : +100 °C

CHANG RUBBER DEVELOPMENT CO., LTD.



FDA GRADE WHITE CR (FDACR145565)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | - | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -20 °C | +110 °C |
| In Oil | | - |
| In Water | | +110 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|------------|-------|
| Good | Fair | Poor | Poor | Unsuitable | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

Application for food processing
and tool accessories



MATERIAL SPECIFICATIONS

“ Chang FDA

ChangFG rubber sheet is made from FDA approved material. ChangRubber follow strictly FDA rules and guidelines to ensure that all our good grade rubber sheet does not contain any prohibited additives or pigments. Our comprehensive manufacturing process has led us to develop a non toxic sheet with high strength, elasticity and abrasion resistance for food/ bakery industry, whilst fully compliant with strict food quality protocols. We offer food grade products in NBR, EPDM, CR and NR

”

Advantage

- None toxic
- Excellent resistance to impact, cut and tear
- Outstanding tensile strength
- High resilience

Applications

- Food processing
- Food packaging
- Bakery industry
- Gasket and other various type of food grade seals
- Pharmaceuticals and cosmetics industry

FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10m
- Length : 10m
- Thickness : From 1mm to 20mm
- Standard Color : White
- Work Temperature : +100 °C

CHANG RUBBER DEVELOPMENT CO., LTD.



FDA GRADE WHITE EPDM (FDAEP130565)



MATERIAL SPECIFICATIONS

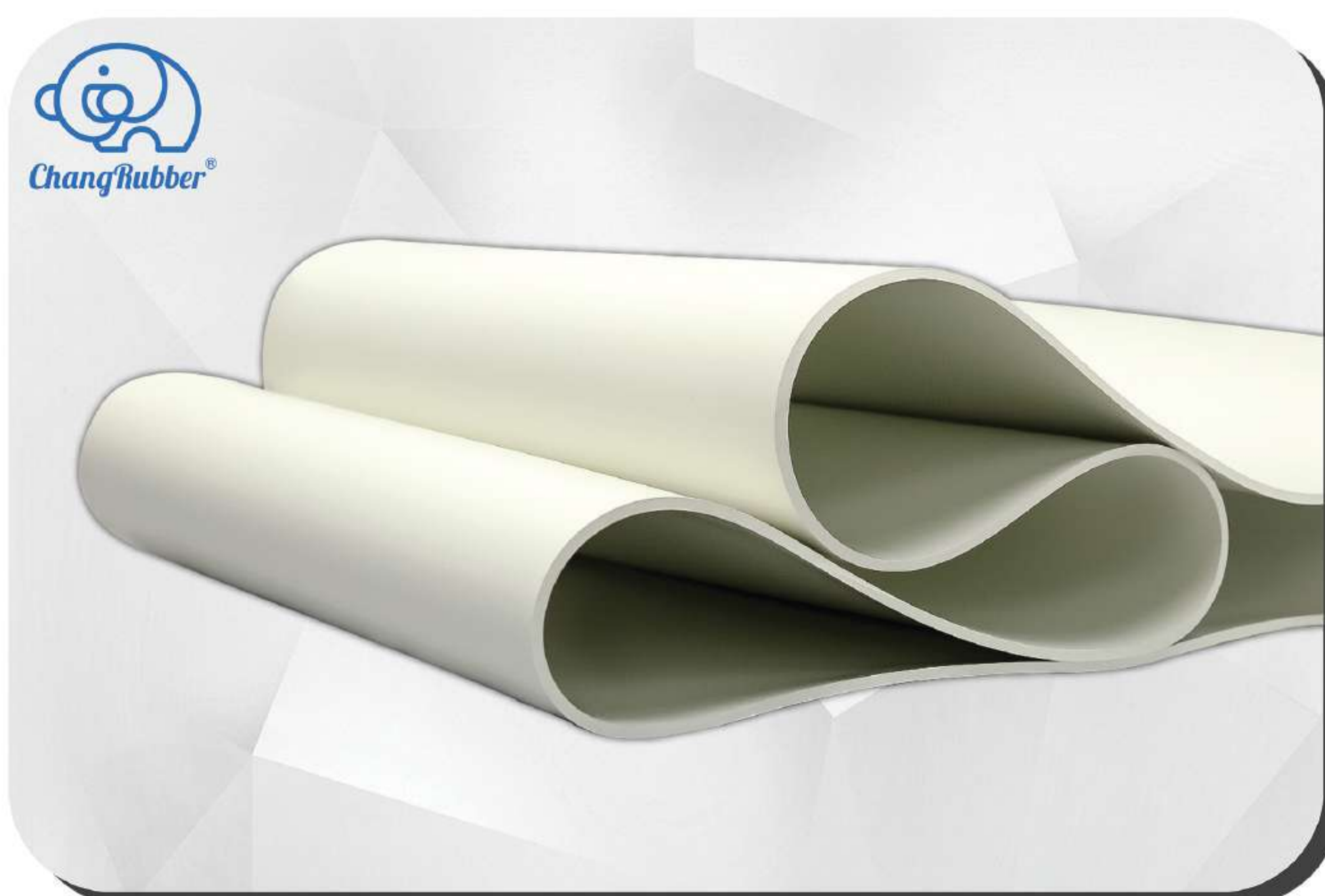
| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.30 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 300 | % |
| Tear Strength | ASTM D-624 | 20 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | - | % |

WORKING TEMPERATURE







| | | |
|----------|--------|---------|
| In Air | -40 °C | +140 °C |
| In Oil | | - |
| In Water | | +140 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|------------|-------|
| Good | Fair | Poor | Poor | Unsuitable | Good |



Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request

Application for food processing
and tool accessories



MATERIAL SPECIFICATIONS

“ Chang FDA

ChangFG rubber sheet is made from FDA approved material. ChangRubber follow strictly FDA rules and guidelines to ensure that all our good grade rubber sheet does not contain any prohibited additives or pigments. Our comprehensive manufacturing process has led us to develop a non toxic sheet with high strength, elasticity and abrasion resistance for food/ bakery industry, whilst fully compliant with strict food quality protocols. We offer food grade products in NBR, EPDM, CR and NR

Advantage

- None toxic
- Excellent resistance to impact, cut and tear
- Outstanding tensile strength
- High resilience

Applications

- Food processing
- Food packaging
- Bakery industry
- Gasket and other various type of food grade seals
- Pharmaceuticals and cosmetics industry



FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10m
- Length : 10m
- Thickness : From 1mm to 20mm
- Standard Color : White
- Work Temperature : +100 °C

CHANG RUBBER DEVELOPMENT CO., LTD.



FDA GRADE WHITE NBR (FDANBR140665)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.40 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 6 | MPa |
| Elongation | ASTM D-412 | 350 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | - | % |

WORKING TEMPERATURE







| | | |
|----------|--------|---------|
| In Air | -10 °C | +100 °C |
| In Oil | | - |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-------|-------|
| Good | Fair | Poor | Poor | Good | Poor |



Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request

Application for food processing
and tool accessories



MATERIAL SPECIFICATIONS

“ ChangExp CR

CR rubber (Chloroprene) is the common name for the organic compound, this synthetic rubber sheet is better known to the public as Neoprene. Neoprene rubber exhibits good chemical stability and maintains flexibility over a wide temperature range. Neoprene resistance of degradation is better than natural rubber sheet or any other synthetic rubber sheet. This makes it very suitable for demanding applications such as gaskets, hoses, corrosion resistant lining. It resists burning better than other synthetic hydrocarbon based rubbers. Resulting in its appearance in weather stripping for fire doors, electrical control boxes and transformers. Neoprene is used in every bearing base in civil engineering especially for bridge construction.

ChangExp CR rubber sheet is an all-purpose elastomer with an extremely versatile synthetic rubber used in every industry application. Neoprene rubber sheet is excellent at resisting degradation from sun, ozone and weather, performs well in contact with oils and chemicals. Neoprene rubber maintains its strength, flexibility, twisting and elongation very well over a wide temperature range while having outstanding physical toughness. ”

FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 1500mm
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : +110 °C

Advantage

- Good resistance to abrasion and flex cracking
- Moderate oil resistance
- Resilience to alkaline and acid
- Good natural aging
- Good resistance to abrasion

Applications

- Gasket & seals
- Chemical container liner

CHANG RUBBER DEVELOPMENT CO., LTD.



NEOPRENE RUBBER (THNEO141860)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT | | |
|---|--------------------|-----------------|-------------------|--------------|--------------|
| Specific Gravity | ASTM D297 | 1.40 | g/cm ³ | | |
| Hardness | ASTM D2240 | 60 +/-5 | Shore A | | |
| Tensile Strength | ASTM D-412 | 18 | MPa | | |
| Elongation | ASTM D-412 | 400 | % | | |
| Tear Strength | ASTM D-624 | 35 | kgf/cm | | |
| Compression Set (22 Hours at 70 °C) | ASTM D-624 | <15 | % | | |
| HEAT AGING RESISTANCE @ ASTM D-573 (70 HOURS AT 100°C) | | | | | |
| Hardness | ASTM D2240 | +6 | Shore A | | |
| Tensile Strength | ASTM D-412 | +2 | % | | |
| Elongation | ASTM D-412 | -4 | % | | |
| WORKING TEMPERATURE | | | | | |
| In Air | | -40 °C | +110 °C | | |
| In Oil | | | - | | |
| In Water | | | +110 °C | | |
| MAIN CHARACTERISTICS | | | | | |
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Excellent | Poor | Good | Fair | Excellent |

Resistant to weathering, ozone,
weak oils, acid and leaches



NEOPRENE RUBBER (CR) (THCR141065)







MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.40 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 10 | MPa |
| Elongation | ASTM D-412 | 400 | % |
| Tear Strength | ASTM D-624 | 30 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 35 | % |

| WORKING TEMPERATURE | | | |
|---------------------|--|--------|---------|
| In Air | | -25 °C | +100 °C |
| In Oil | | | - |
| In Water | | | +100 °C |

| MAIN CHARACTERISTICS | | | | | |
|----------------------|-------------|------------|-------|-------|-------|
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Fair | Unsuitable | Good | Fair | Good |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



**Resistant to weathering, ozone,
weak oils, acid and leaches**



NEOPRENE RUBBER (CR) (THCR145665W)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 65 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 6 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 22 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -25 °C | +100 °C |
| In Oil | | - |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|------------|-------|-------|-------|
| Good | Fair | Unsuitable | Good | Fair | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Resistant to weathering, ozone,
weak oils, acid and leaches**









MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 80 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 200 | % |
| Tear Strength | ASTM D-624 | 35 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 20 | % |

| WORKING TEMPERATURE | | | |
|---------------------|--|--------|---------|
| In Air | | -25 °C | +100 °C |
| In Oil | | | - |
| In Water | | | +100 °C |

| MAIN CHARACTERISTICS | | | | | |
|----------------------|-------------|------------|-------|-------|-------|
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Fair | Unsuitable | Good | Fair | Good |

Note:

-  All colors available.
-  Cloth insertion, nylon insertion available.
-  Cloth impression finish available.
-  Specification and size on the customer's request.
-  Test methods accord with ISO standard
-  New product formula can be designed by request



Resistant to weathering, ozone,
weak oils, acid and leaches



NEOPRENE RUBBER (CR) (THCR145550)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.45 | g/cm ³ |
| Hardness | ASTM D2240 | 50 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 5 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 25 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -25 °C | +100 °C |
| In Oil | | - |
| In Water | | +100 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|------------|-------|-------|-------|
| Good | Fair | Unsuitable | Good | Fair | Good |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Resistant to weathering, ozone,
weak oils, acid and leaches**



MATERIAL SPECIFICATIONS

FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : -30 °C - +150 °C

Peroxide Cured EPDM

Peroxide cured EPDM Rubber sheeting exhibits good weathering resistant, heat resistant, ozone and hot steam resistant. This characteristic is very similar to premium EPDM but with enhanced temperature and better compression set. Peroxide cured EPDM rubber is also safe to drinking water applications, it is suitable for prolonged exposure to drinking water and will not deteriorate when submerged, making it suitable for gasket sealing applications.

Peroxide cured EPDM rubber sheet is the ideal choice for applications related to outdoor weathering, water dam and gasket in water dam and tank.

”

Advantage

- better compression set
- Higher working temperature up to 150 Celsius
- potable water, drinking water applicable
- food safe

Applications

- Automotive
- Chemical industry
- Aerospace
- Fluid power
- Potable water
- Power train systems
- Safety and handling
- Fuel systems
- Appliances
- Food grade

CHANG RUBBER DEVELOPMENT CO., LTD.



PEROXIDE CURED (EPDM) RUBBER SHEET (TXEP111560)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT | | |
|--|--------------------|-----------------|-------------------|--------------|--------------|
| Specific Gravity | ASTM D297 | 1.10 | g/cm ³ | | |
| Hardness | ASTM D2240 | 60 +/-5 | Shore A | | |
| Tensile Strength | ASTM D-412 | 15 | MPa | | |
| Elongation | ASTM D-412 | 450 | % | | |
| Tear Strength | ASTM D-624 | 35 | kgf/cm | | |
| Compression Set (22 Hours at 70 °C) | ASTM D-624 | 20 | % | | |
| HEAT RESISTANCE AGING (72 HOURS AT 100°C) | | | | | |
| Hardness | ASTM D2240 | +/-15 | Shore A | | |
| Tensile Strength | ASTM D-412 | +/-30 | % | | |
| Elongation | ASTM D-412 | -50 | % | | |
| WORKING TEMPERATURE | | | | | |
| In Air | | -30 °C | +150 °C | | |
| In Oil | | | - | | |
| In Water | | | +150 °C | | |
| MAIN CHARACTERISTICS | | | | | |
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Excellent | Poor | Poor | Fair | Excellent |

Very good resistance to a lot of chemicals, oils, fuels, and excellent heat resistance



MATERIAL SPECIFICATIONS



FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : -40 °C - +125 °C

“ Peroxide Cured NBR

Peroxide cured NBR is excellent for long term severe applications where exposure to heat, oil and with exceptional compression set.

ChangRubber peroxide cured NBR rubber sheet with minimum 13mpa is very suitable for extreme applications, it's oil resistant is superb even application with mineral oil class III equivalent. Unlike usually sulfure cured NBR rubber sheet, peroxide cured NBR rubber sheet provides better heat resistance, lower compression sets and better mineral oil resistant.

Peroxide cured NBR rubber sheet serve temperature range from -40 to +125 degree celsius, this peroxide cured NBR rubber is ideal application in automotive, power plant industry, aircraft industry, drywell heads, pool gates and etc.

”

Advantage

- better compression set
- Higher working temperature up to 125 Celsius
- Heat Stability

Applications

- Automotive
- Oil & Gas Industry
- Aerospace
- Fluid power
- Transmission belts
- Power train systems
- Animal oil
- Fuel systems
- Dilute acids
- Food grade

CHANG RUBBER DEVELOPMENT CO., LTD.



PEROXIDE CURED (NBR) RUBBER SHEET (TXNBR1261360)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.26 | g/cm ³ |
| Hardness | ASTM D2240 | 60 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 13 | MPa |
| Elongation | ASTM D-412 | 350 | % |
| Tear Strength | ASTM D-624 | 30 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | <20 | % |

HEAT RESISTANCE AGING OIL 903 (72 HOURS AT 100°C)

| | | | |
|------------------|------------|--------|---------|
| Hardness | ASTM D2240 | -5 +10 | Shore A |
| Tensile Strength | ASTM D-412 | -40 | % |
| Elongation | ASTM D-412 | -40 | % |
| Volume Change | ASTM D-412 | +25 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -40 °C | +125 °C |
| In Oil | | +120 °C |
| In Water | | +125 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-------|-----------|-------|
| Good | Excellent | Poor | Poor | Excellent | Fair |

Very good resistance to a lot of chemicals, oils, fuels, and excellent heat resistance



MATERIAL SPECIFICATIONS

FEATURES

- Standard Width : 1000mm
- Width Range : 100mm - 2000mm 10m
- Length : 10m
- Thickness : From 1mm to 50mm
- Standard Color : Black
- Work Temperature : -25 °C - +300 °C

ChangExp FKM & VITON

FKM & VITON is a fluoroelastomer created for today most demanding applications. It has very excellent resistance to acids, hot water, low pressure steam, chlorinated solvents, aliphatic and aromatic hydrocarbons, petroleum oils, fuels, ozone and weather, lubricants, animal and vegetable oils. With very wide service temperature range of -30 to +250 celsius.

ChangExp FKM & VITON are well known for its high performance rubber with excellent resistance to hydrocarbons, chemicals, oil and heat. It also has outstanding resistance to compression, especially at elevated temperature. This rubber sheet is widely used in oil industry, aviation field, automotive industry, aerospace and other aggressive environments.

Advantage

- Excellent chemical resistance
- Outstanding heat resistance
- Excellent sealing capability in aggressive environments
- Excellent high compression resistance
- Resistant to liquid permeability in severe conditions
- Good resistance to flame

Applications

- Automotive
- Chemical industry
- Aerospace
- Fluid power
- Power train systems
- Safety and handling
- Fuel systems
- Appliances

CHANG RUBBER DEVELOPMENT CO., LTD.



FLUORO (VITON) RUBBER SHEET (THFKM195775)



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.95 | g/cm ³ |
| Hardness | ASTM D2240 | 75 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 7 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 45 | % |

WORKING TEMPERATURE

| | | |
|----------|--------|---------|
| In Air | -30 °C | +260 °C |
| In Oil | | +150 °C |
| In Water | | +150 °C |

MAIN CHARACTERISTICS

| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
|------------|-------------|----------|-----------|-----------|-----------|
| Good | Fair | Poor | Excellent | Excellent | Excellent |



Note:

- All colors available.
- Cloth insertion, nylon insertion available.
- Cloth impression finish available.
- Specification and size on the customer's request.
- Test methods accord with ISO standard
- New product formula can be designed by request

**Verygood resistance to a lot of
chemicals, oils, fuels, and
excellent heat resistance**



MATERIAL SPECIFICATIONS

| SPECIFICATION | TEST METHOD | TEST RESULT | UNIT |
|--|-------------|-------------|-------------------|
| Specific Gravity | ASTM D297 | 1.95 | g/cm ³ |
| Hardness | ASTM D2240 | 75 +/-5 | Shore A |
| Tensile Strength | ASTM D-412 | 9 | MPa |
| Elongation | ASTM D-412 | 250 | % |
| Tear Strength | ASTM D-624 | 18 | kgf/cm |
| Compression Set (22 Hours at 70 °C) | ASTM D-395 | 40 | % |

| WORKING TEMPERATURE | | | |
|---------------------|--|--------|---------|
| In Air | | -30 °C | +260 °C |
| In Oil | | | +150 °C |
| In Water | | | +150 °C |

| MAIN CHARACTERISTICS | | | | | |
|----------------------|-------------|----------|-----------|-----------|-----------|
| ELASTICITY | COMPRESSION | ABRASION | FLAME | FUELS | OZONE |
| Good | Fair | Poor | Excellent | Excellent | Excellent |

Note:

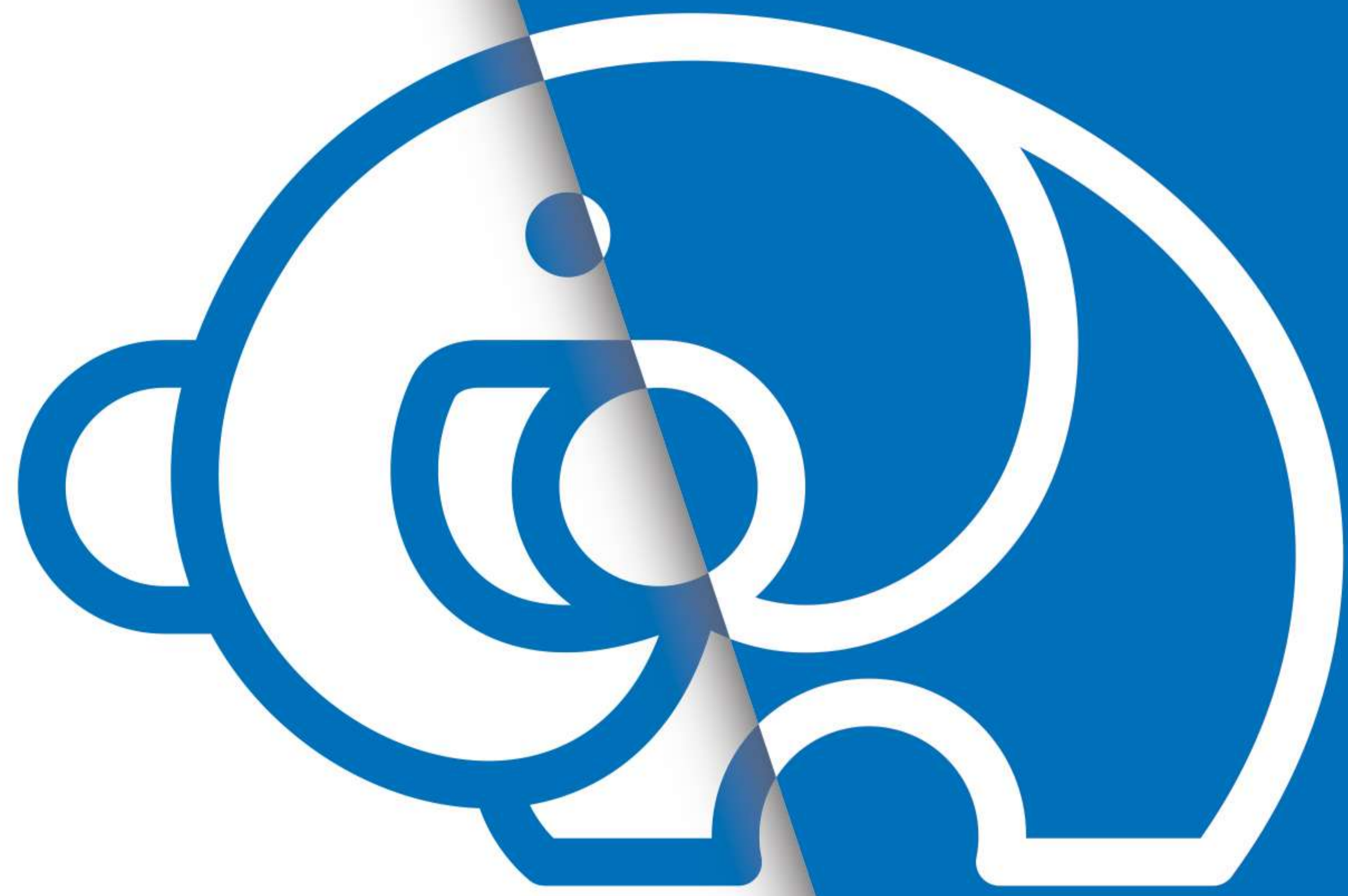
- ☞ All colors available.
- ☞ Cloth insertion, nylon insertion available.
- ☞ Cloth impression finish available.
- ☞ Specification and size on the customer's request.
- ☞ Test methods accord with ISO standard
- ☞ New product formula can be designed by request



Very good resistance to a lot of chemicals, oils, fuels, and excellent heat resistance



Research and



ChangRubber[®]

Development

Manufacturing flexibility has never been as important for industry as it is today. The ability of a manufacturer to innovate and adapt to the current challenging environment requirement is vital. The road to innovation start with R&D, the road to fine tune and consistent final product also start to R&D. ChangRubber realized the important and vital role of R&D to maintain the brand reputation and to keep innovating new product, we had constantly keep in touch with equipment manufacturer for the latest technologies update. We have a full range of R&D equipment in our laboratory with well-trained R&D staff to fulfill every needs of rubber sheet.



FTIR Analyzer

(Fourier Transform Infrared Spectrometer)

A complicated machine using infrared light to scan the specimen, spectrum of the reflection then converted into rotational energy. The result of the signal is detected. Each molecule reflect a unique spectral fingerprint which make FTIR analysis machine a great tool for rubber identifications.

Thermogravimetric Analyzer (TGA)

A programmable furnace that connected to an intergrated balance, heating and weighing instrucment. Weight is measured over time as the temperature changes. Data collected from a thermal reaction is compile into a plot of mass percentage can be plotted to determine the decomposition patterns thus dertermine the possible material in the specimen.



Aging Oven Tester

This machine evaluates the heat resistance of the rubber specimen in aging and degradation. With exposes specimen to an simulated atmosphere where new heated air is constantly supplied at a specified rate, thus accelerated degradation. Theoretically a test session in 70 celsius for 24 hours continuously is equivalent to six months of exposure of the specimen in normal conditions.



Universal Testing Machine

Universal testing machine working by pulling the specimen at the specified strength and movement speed, it determine the tensile strength and compressive strength of a rubber specimen. When the specimen breaks, the date is processed by programmed software to determine the tensile strength, elongation at break and tear strength.



Abrasion Tester

DIN abrasion tester is to determine abrasion of a specimen. Complies with DIN 52516, ASTM D5963, ISO 4649. The lower the index showing the better the rubber against abrasion resistant.



Mooney Viscometer MVM11



Mooney Viscometer

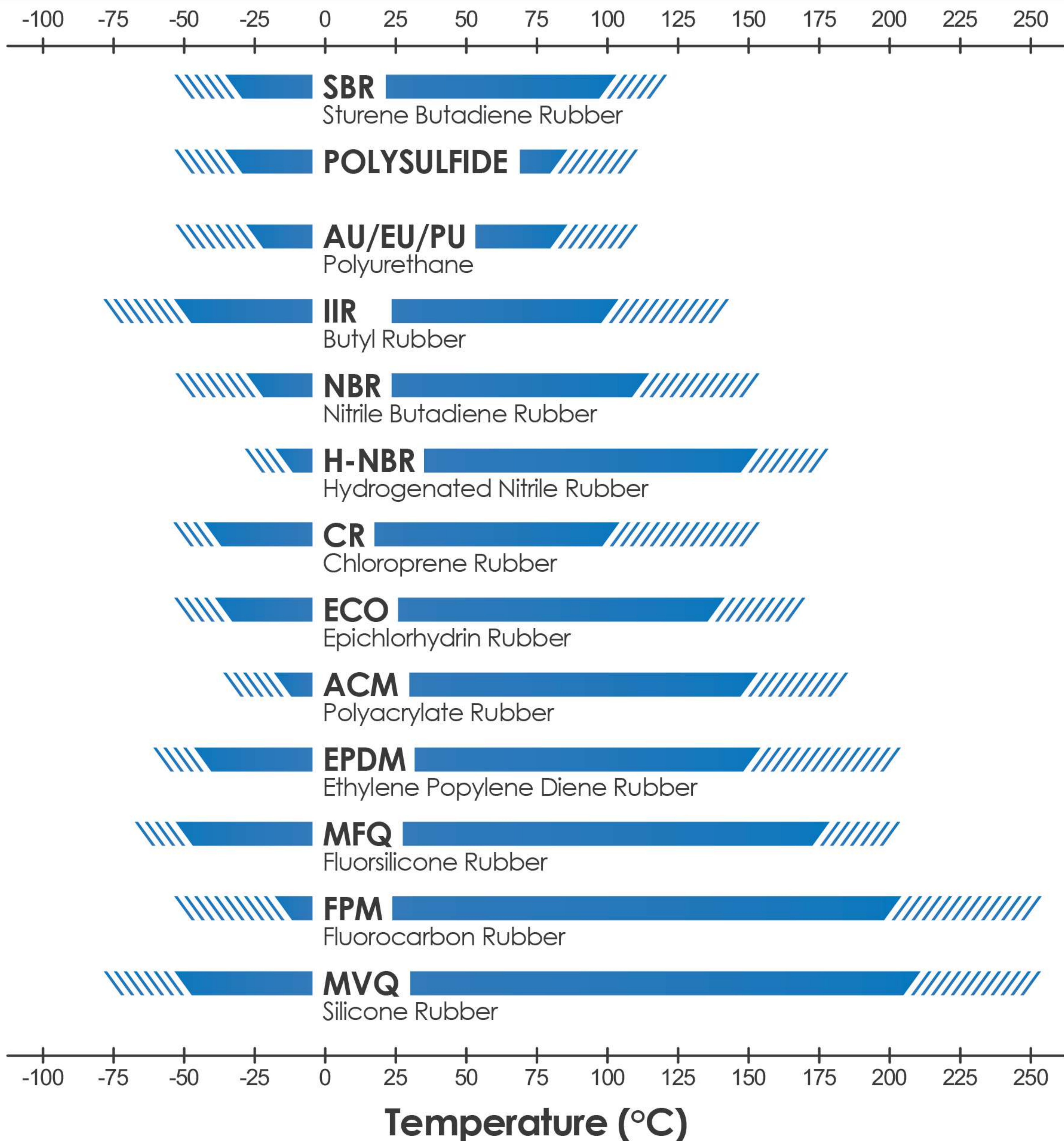
A instrucment used for measuring the mooney viscosity of rubber with rotating spindle and heated dies to calculate it's mooney viscosity from the torque on the spindle. This mooney viscometer measures the changes in rubber properties over time from uncured to scorched state. Indication of the prevulcanization tendency of the compound to determine the vulcanization time for the sample blended for optimum performance.

Temperature and Humidity Chamber

This special chamber simulated different climatic conditions such as heat, cold, dryness and humidity with temperature range from -80 to +200 celsius. This chamber testing clearly defined the weather resistant of the rubber sheet.



TEMPERATURE RESISTANCE OF RUBBER MATERIALS



 Working Temperature Period
 Only to be Achieved Under Particular Conditions With Special Compounds

CHANG RUBBER DEVELOPMENT CO., LTD.



RUBBER MATERIALS PROPERTIES



| | NR | IR | SBR | BR | IIR | EPDM | CR | NBR | PU | CSM | ACM | ECO | VAE | SI | FPM |
|-------------------------------|----|----|-----|----|-----|------|----|-----|----|-----|-----|-----|-----|----|-----|
| Tensile Strength | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Elongation | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Rebound Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Tear Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Abrasion Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Impact Strength Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Gas Impermeability Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

| | NR | IR | SBR | BR | IIR | EPDM | CR | NBR | PU | CSM | ACM | ECO | VAE | SI | FPM |
|----------------------------|----|----|-----|----|-----|------|----|-----|----|-----|-----|-----|-----|----|-----|
| Ozone Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Weathering Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Flame Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Heat Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Low Temperature Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

| | NR | IR | SBR | BR | IIR | EPDM | CR | NBR | PU | CSM | ACM | ECO | VAE | SI | FPM |
|-----------------------------------|----|----|-----|----|-----|------|----|-----|----|-----|-----|-----|-----|----|-----|
| Oil & Fuel Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Animal & Vegetable oil Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Alcohol Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Alkaline Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Acid Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Aliphatic-Solvent Resistance | | | | | | | | | | | | | | | |
| -Aliphatic | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| -Aromatic | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Oxygenated-Solvent Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Water Resistance | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

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