

# SRP



المصنع السعودي للمنتجات المطاطية  
Saudi Rubber Products Factory

**RUBBER  
TECHNICAL  
PRODUCT  
GUIDE**



أحد مصانع شركة الوسائل الصناعية

ALWASAIL الوسائل

**2022**

2022

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SRP since 1998 has started a factory for all kind of Rubber Products at Buraydah Al Qassim 1<sup>st</sup> industrial City KSA. Made as per specifications from the customers for Industrial, Agriculture & Construction purposes.

We have staffed with motivated, professional and qualified in the field of Rubber Industry.

Our services oriented approach commitment to quality products and competitive prices to ensures that all our products meet the requirements of our clients. Our products unit houses a full-fledged modern laboratory with the latest Equipments for our Quality Assurance commitment.



**Saleh AL-Mushayqih**  
General Managing Director

## OUR MISSION & VISION

### MISSION

Established and develop our industries and transfer technology and provide opportunities to work with full attention to quality, safety and preserve the environment.

### VISION

We look forward to become the leading company with high quality products and provide first class services to all clients

Also we are seeking to add value to local industry for KSA which will meet the vision of our country 2030.

### M.D. STATEMENT

Praise be to Allah and prayer and peace be upon his prophets and messengers and on our prophet Mohammed and his family and companions.

What we have in our company during past years is an unprecedented achievement compared to global market fluctuations and stability of our company in the same period was from almighty Allah and then the convergence efforts of members based on this industrial architecture and their vision became finest examples to consistently produce and fulfil markets regularly ,because real challenge is to continue the excellence and success and that does not come only through striving to do more and Allah supervene success.



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## Material Properties



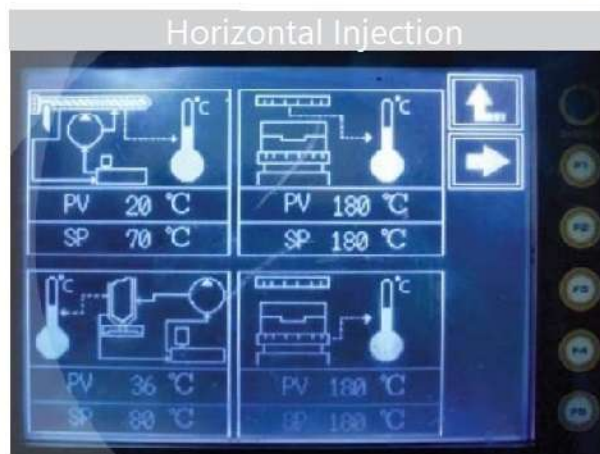
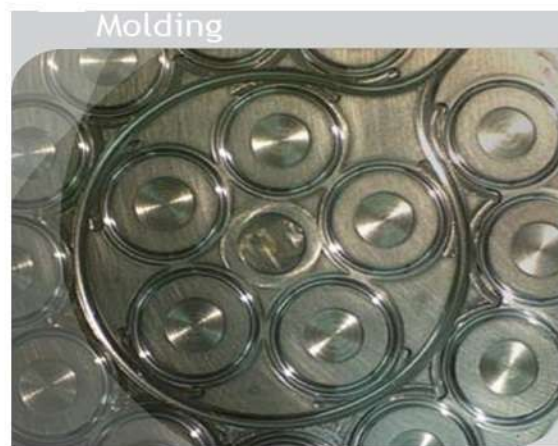
Description	Specific gravity	Refractive index (ND)	Solubility parameter (SP)	Mooney viscosity (ML1+4, 100°C)	Processability
NR	0.91~0.93	1.59	7.9~8.1	90~150	A
BR	0.91~0.94	~	8.4~8.6	35~55	A
SBR	0.93~0.94	1.5339~1.5348	8.4~8.6	30~60	A
IIR	0.91~0.93	1.508~1.509	7.7~8.06	45~75	C
EPM/EPDM	0.86~0.87	~	7.9~8.0	45~120	B
EVA	0.98~0.99	~	~	20~30	A
CR	1.15~1.25	1.353~1.560	8.85	45~120	A
NBR	1.00~1.20	1.521	9.64	30~100	A
NIR	0.96	~	~	70	A
ACM	1.09~1.10	~	~	45~60	C
PU	1.00~1.30	~	10	25~60	C
T	1.34~1.41	~	9.0~9.4	25~50	D
SI	0.96~0.98	~	7.3	~	B
FPM	1.80~1.82	~	7.3	65~180	C

Description	Hardness (Shore A)	Tensile break strength (kg/cm <sup>2</sup> )	Elongation (%)	Elasticity	Tearing strength	Compression set	Abrasion resistance	Flex-cracking inhibitor
NR	10~100	30~300	100~1000	A	A	A	A	A
BR	30~100	20~200	100~800	A	B	B	A	C
SBR	30~100	50~200	100~800	B	C	B	A	B
IIR	20~90	50~150	100~800	C	B	C	B	A
EPM/EPDM	30~90	50~200	100~800	B	C	B	B	B
EVA	50~90	70~200	100~600	B	B	B	B	B
CR	10~90	50~250	100~1000	A	B	A	A~B	B
NBR	15~100	50~250	100~800	B	B	A	A	B
NIR	15~100	100~300	100~900	B	B	B	A	B
ACM	40~90	70~120	100~600	C	C	D	B	B
PU	10~100	200~450	300~800	A	A	A	A	A
T	30~90	30~150	100~700	C	C~D	D	C~D	D
SI	30~90	40~100	50~500	A	C~D	A	C~D	B~D
FPM	50~90	70~200	100~500	C	B	B	A	B

Description	Peak Temp (°C)	Temp resistance (brittle temp. °C)	Resistance to ageing	Resistance to ozone	Resistance to light	Resistance to flame	Air impermeability	Resistance to radiation
NR	100	-50~70	B	D	B	D	B	B~C
BR	100	-70	B	D	B	D	B	D
SBR	100	-30~60	B	C	B	D	C	B
IIR	150	-30~55	A	A	A	D	A	D
EPM/EPDM	150	-40~60	A	A	A	D	A	B
EVA	100	-20~30	A	A	A	D	A	B
CR	120	-35~55	A	B	A	B	B	A~C
NBR	120	-10~20	B	D	B	C~D	B	B~D
NIR	120	-10	A	D	B	C~D	B	B~D
ACM	160	0~30	A	A	A	C~D	B	B~D
PU	80	-30~60	B	A	A	C~D	B	B
T	80	+10~40	B	A	A	D	A	B~C
SI	250	-70~120	A	A	A	B~D	D	A~C
FPM	250	-10~20	A	A	A	A	A	B~C



# Machinery & Technology



# 3S RUBBER RING

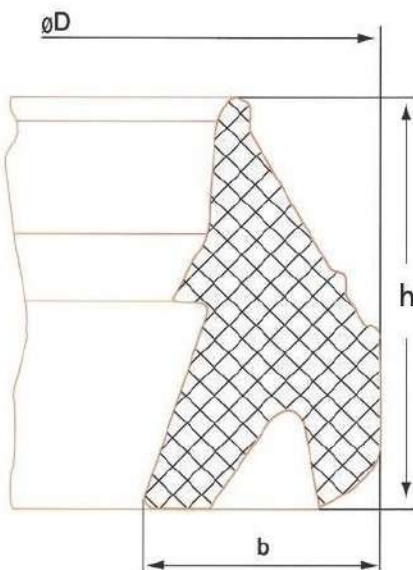
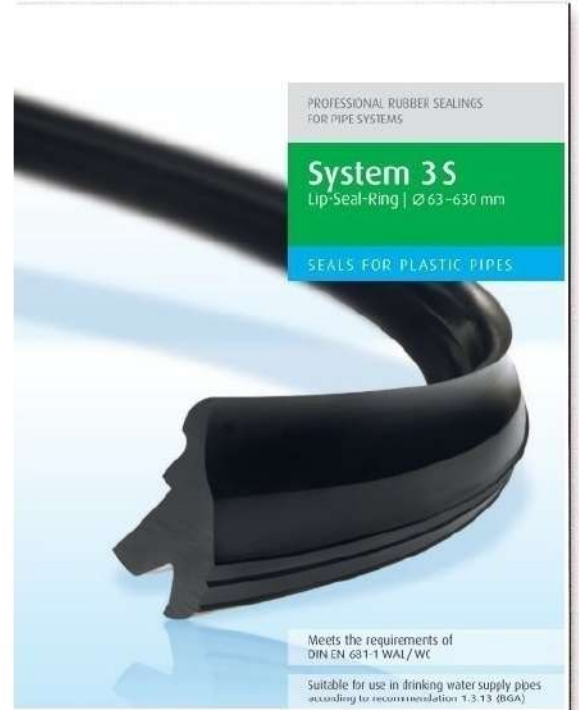
## 3S RUBBER RING

Seal for PLASTIC PRESSURE PIPES in UPVC in accordance to the international standards and specifications with ASTM F 477, BS 681-1 BS 2494.

SRP special seals are manufactured as per international standards using Elastomers (NR-SBR-EPDM-NBR) to meet requirement of potable water application as per ( BS 6920,WRC) UK.

## APPLICATION

Rubber rings used to seal the pipes at the point of joints and for not allow entry of liquid and gas into the pipeline.



Hardness: 60±5 IRHD

Dimensions, mm						
Pipe Ø	DN	ØD	b	h		
63	50	83.60 ±0.7	10.30 ±0.4	18.10 ±0.4		
75	65	98.00 ±0.7	11.50 ±0.4	20.30 ±0.4		
90	80	115.60 ±0.7	12.80 ±0.4	22.20 ±0.4		
110	100	138.40 ±0.8	14.20 ±0.4	24.20 ±0.4		
140	125	171.60 ±0.8	15.80 ±0.4	26.10 ±0.4		
160	150	194.40 ±1.0	17.20 ±0.4	27.80 ±0.4		
200	-	238.20 ±1.0	19.10 ±0.4	29.50 ±0.4		
225	200	266.20 ±1.2	20.60 ±0.4	31.40 ±0.4		
250	-	295.70 ±1.2	22.85 ±0.4	35.20 ±0.4		
280	250	329.20 ±1.5	24.60 ±0.4	37.30 ±0.4		
315	300	367.80 ±1.5	26.40 ±0.5	38.90 ±0.4		
400	-	464.00 ±1.8	32.00 ±0.5	46.60 ±0.5		
500	-	571.60 ±2.7	34.30 ±0.6	54.00 ±1.3		
630	-	716.50 ±4.2	40.50 ±0.6	64.00 ±1.3		

\* Special dimentions upon request



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# LIP SEAL RUBBER RING

## RUBBER RING LIP SEAL

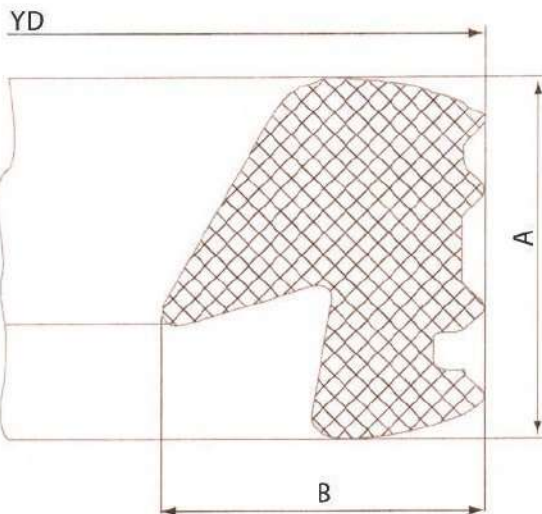
For plastic pipes in PVC-U in accordance with DIN V 19534, EN 1401

Elastomer materials in accordance with ASTM F477, BS 681-1.

SRP special seals are manufactured as per international standards using Elastomers (NR- SBR-EPDM-NBR) to meet requirement of potable water application as per ( BS 6920,WRC) UK.

## APPLICATION

Rubber Rings used to seal the pipes & fittings at the point of the joint and for not allow entry of outside liquid and gas into the pipeline.



Dimensions, mm			
SIZE	YD	A	B
D 40	52.8 ±0.6	9.6 ±0.4	7.7 ±0.3
D 50	62.8 ±0.8	9.6 ±0.4	7.7 ±0.3
D 75	88.9 ±0.3	9.6 ±0.4	7.7 ±0.3
D 110	124.6 ± 1.0	9.6 ±0.4	7.7± 0.3
D 160	179.4 ± 1.0	13.3 ± 0.4	10.9 ± 0.4
D 200	222.6 ± 1.3	14.0 ± 0.4	12.0 ±0.4

Special dimensions upon request

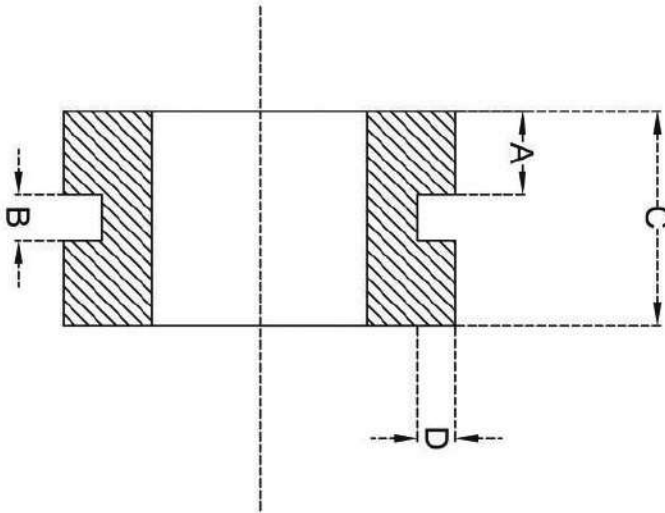
2022

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# GROMMET

## APPLICATION

Rubber grommet used for protect , wire, hose , pipe and other objectives pass through solid panelwall .



## Grommet A

## Grommet B



8 mm



16 mm

20mm

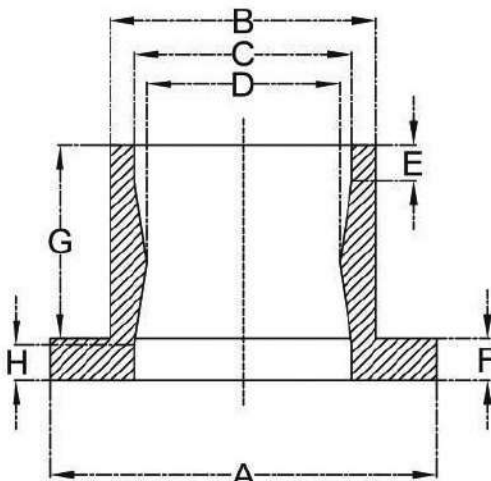
Dimensions' MM			
SIZE'S	20	16	8
A	5.5	4	3
B	3	3	3
C	14	11	9
D	2.5	3	2

Special dimensions upon request

# TOP HAT

## APPLICATION

Rubber Top hat used for convenient way to attaching tubing and fittings of buckets , water tank etc..



Dimensions' MM			
SIZE'S	19	16	13
A	32	27	24
B	22	20	16.5
C	18	16	11.5
D	16	14	10
E	3	5	1.5
F	3.5	3	3
G	16	16	10
H	3	5	6



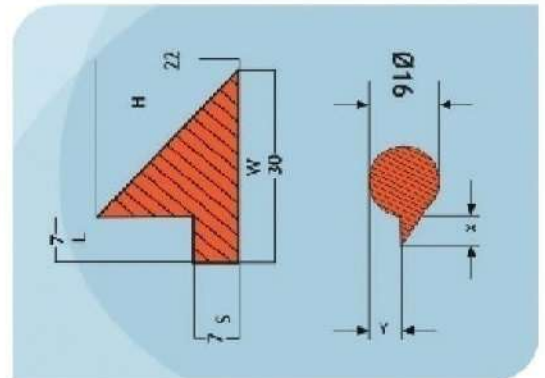
# Pipe Seal

## RUBBER RING FOR CONCRETE PIPES

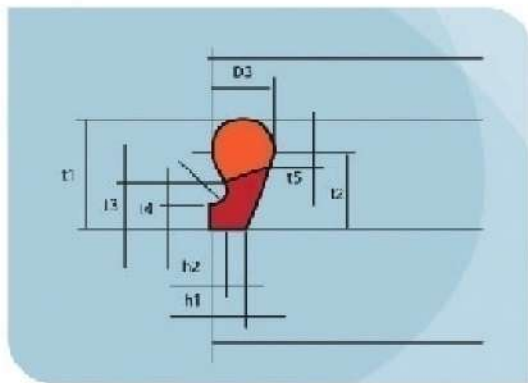
### APPLICATION

Rubber Seal to use for jointing of Concrete Pipe with Tow types of Design:

- Angular Ring
- Rubber Oring



## DUCTILE RUBBER



### APPLICATION

Rubber Seal for joint of Ductile Cast Iron Pipe and fitting in accordance with ISO 2531 with ISO 2531 with type of T-Shape for use in size 100 To 1200 and K-Shape for use in size 1400 To 2200 .

# Clay pipe seals

## Custom designed seals for clay pipe producers

SRP designs and manufactures seals for clay pipes. We provide custom designed seals for the individual clay pipe producers. The joints are designed in cooperation with the pipe manufacturer to ensure the joint meets and exceeds the requirements of EN 295-1.

Seals can be fitted either to the pipe spigot end or integrated into the polypropylene fitting production as a captive gasket.

All joints accept angular deflection and shear load resistance without leakage, when tested under an internal or external pressure of 0.5 bar. Due to the excellent sealing function,

SRP clay seal ranges offer improved performance against root intrusion allowing the pipes to be installed in both open trench and no-dig pipelines.

In addition,

SRP manufactures specialist seals, which offer a leak free solution up to 4.5 bar internal and external water pressure.



## Application

### L-joint rubber ring for Clay Pipe System

Type	DN	OD	ID	H
L	100	151	110	28
L	150	218	152	28
L	200	278	218	28
L	225	308	242	28

\*All Dimensions in mm

### Materials

SRP has developed a specially formulated SBR&EPDM compounds for the use in clay pipe applications.

Our rubber compounds are the ideal material for such applications, offering increased reliability and exceeding the requirements of the relevant standards.

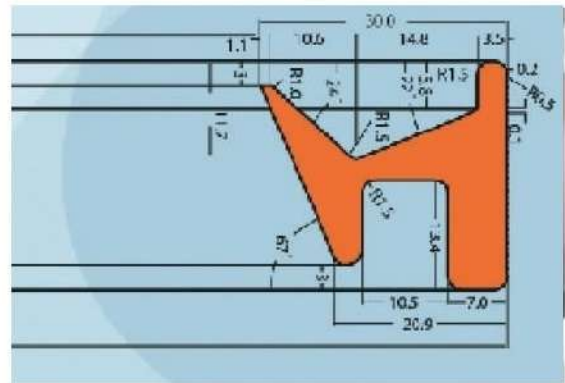
The chemical composition of our compounds provides exceptionally high resistance to the effects of UV light, weathering, oxidization and ozone.

The materials excellent restoring force characteristics mean that it can be expected to offer super performance for in excess of 100 years.

Nitrile (NBR) compounds are also available. All compounds are manufactured in accordance with EN 681-1.

### Key Features & Benefits

- Improved performance against root intrusion
- Installed in both open trench and no-dig pipe lines
- Specialist leak free solution up to 4.5 bar internal & external pressure





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# Pipe Seal

## REKA RUBBER RING

### GRP PIPE EPDM/NBR SEALS

#### Reka® Joints

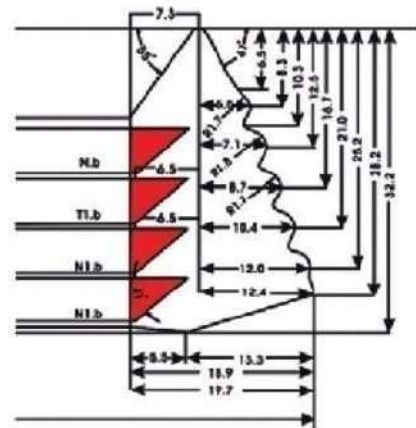
GRP EPDM Reka Rings- Saudi Rubber Factory Products manufactures an exhaustive range of EPDM& NBR pipe seals for GRP/FRP pipes in diameters ranging from 80 mm to 600mm. Our seals are manufactured in various stock elastomeric compounds in compliance with worldwide regulations including ASTM F477 and BSEN 681. The unique lip design of the Reka® profile reduces installation time and accommodates change in flow direction and to eliminate permeation.

#### APPLICATION

Rubber Seal for jointing of GRP Pipe with Different Design Type.

#### GRP Reka Rings Application

- 1. Potable and Raw Water Supply
- 2. Sewage Disposal
- 3. Storm Water Drainage
- 4. Industrial Effluents
- 5. Sea Water Processing



#### TYPES OF REKA RINGS





# FLANGE GASKET

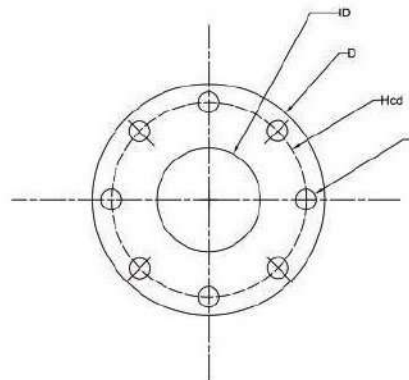


SIZE (mm)	D	n	Hcd	d	ID
63	165	4	125	18	78
75	185	8	145	18	92
90	200	8	160	18	108
110	220	8	180	18	128
125	220	8	180	18	135
160	285	8	240	22	178
200	340	12	295	22	235
225	340	12	295	22	238
250	405	12	355	26	288
315	460	12	410	26	338
355	520	16	470	26	376
400	580	16	525	30	430
500	715	20	650	33	535
630	840	20	770	36	645

ISO 7005 - EN 1092 - BS 4504 - DIN 2501

\*n=No.of bolt hole

\*Special dimensions upon request



This view may not represent the exact of hole

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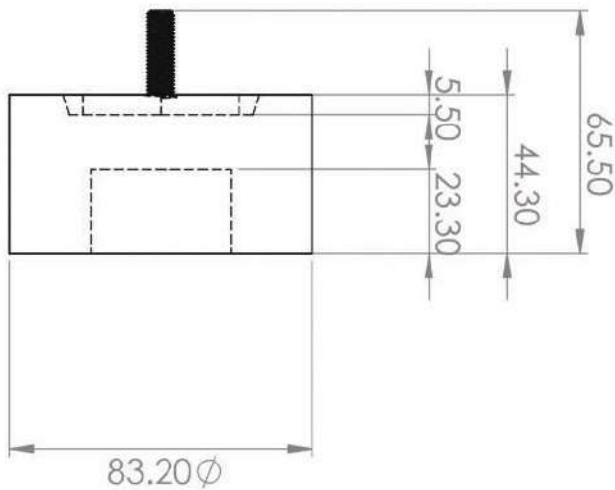
C10

# MOUNTING RUBBER

ROUND

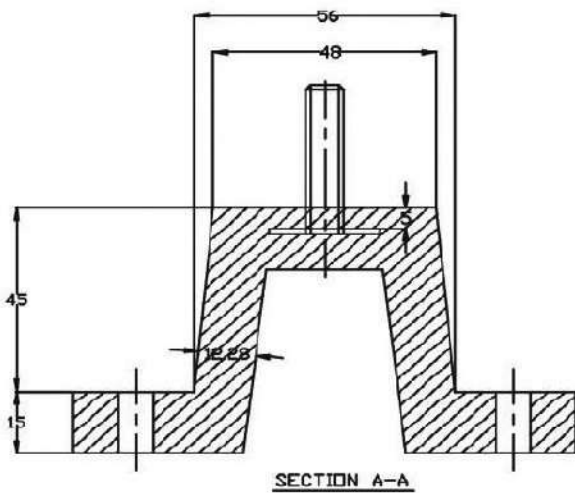
## APPLICATION

Rubber Mounting used for HVAC ,Electrical panel and heavy motor mounting.



# MOUNTING RUBBER

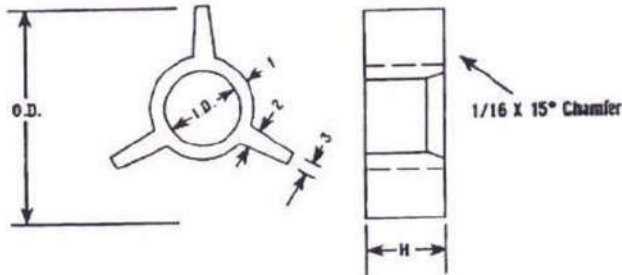
SQUARE



ASTM F 477- BS 681-1

2022

**C11 RUBBER SPIDER**



TUBE SIZE	COLUMN SIZE	WALL THK PIPE	SPIDER I.D	SPIDER O.D	1	2	3	H
2-1/2	6 H	0.280	2.83	6.02	0.45	0.82	0.62	2.7
2-1/2	8 H	0.277	2.74	8.07	0.58	0.71-0.62	0.64-0.56	2.82
2-1/2	8	0.277	2.82	8.12	0.37	0.65-0.55	0.48-0.38	2.95

All dimensions are in inch

STANDARD ASTM F 477- BS 681-1

**RUBBER WASHER**



**PLUCKING FINGER**



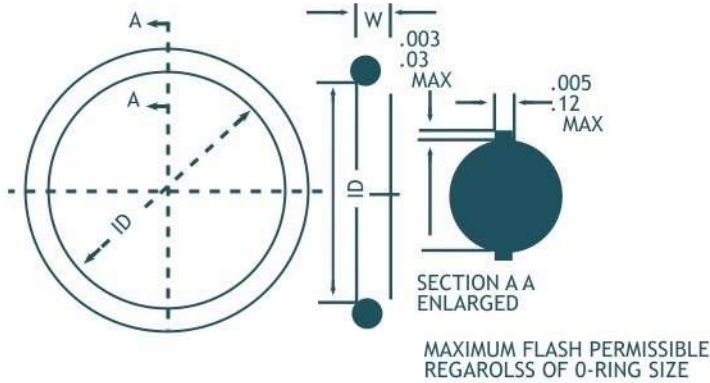
STANDARD ASTM F 477- BS 681-1



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# O RING



Dimensions, mm		
Item code	W.mm	ID.mm
ORS 701-050	1.8	6.3
ORS 702-112	2.5	10.5
ORS 701-023	3	12.5
ORS 701-028	2.75	15
ORS 701-029	3	15.3
ORS 701-030	2.5	15.5
ORS 701-031	3.5	18
ORS 701-032	3.5	19.6
ORS 701-034	3.5	22
ORS 701-035	3.5	23
ORS 701-036	4	24
ORS 701-037	1.8	30
ORS 701-038	3.7	30
ORS 701-039	4.5	30
ORS 701-040	5	31
ORS 701-041	3.5	36.5
ORS 701-042	5	37.5
ORS 701-043	6	39
ORS 701-044	3.5	42
ORS 701-045	3.5	44.5
ORS 701-046	7	48
ORS 701-047	3	52.5
ORS 701-048	4	57
ORS 701-049	9.2	59.4
ORS 701-051	10	61
ORS 701-052	6	62
ORS 701-053	7	61
ORS 701-054	3.4	64
ORS 701-055	3.5	81
ORS 701-056	3.5	85
ORS 701-057	10.2	88.5
ORS 701-022	9.8	108
ORS 701-025	5.3	120
ORS 701-026	15	122
ORS 701-027	10	122.2
ORS 701-033	15	200

**\*Special Dimensions upon request.**

## SRP O-RINGS

manufactured by injection and compression molding process.

o rings are based on the vesatile cross-section.

The available o rings are manufactured as per international standards: BS 681. ASTM F 477




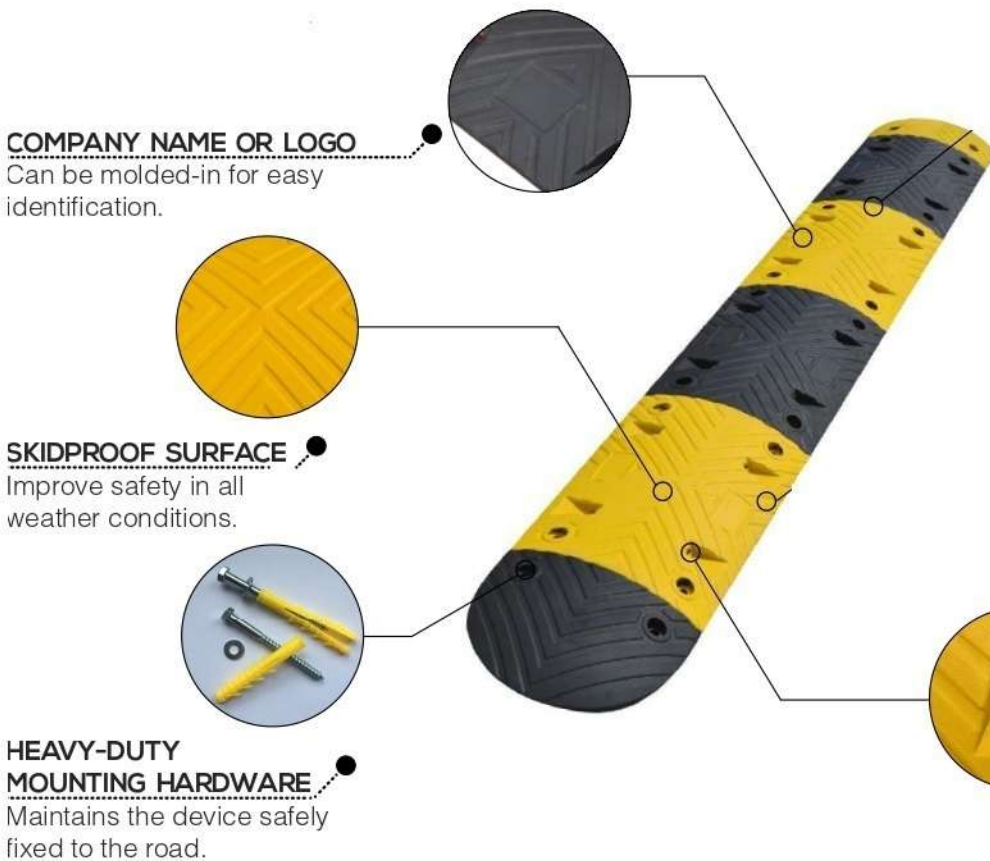
## TYPICAL PHYSICAL PROPERTIES OF EPDM SPONGE PROFILES



Properties	Average Physical Properties	ASTM Method
Material	EPDM 70	
Hardness (Shore A)	70	ASTM D 2240
Tensile Strength (MPa)	10.3 Min	ASTM D 412
Elongation Break %	200 Min	ASTM D 412
Tensile Change %	15 Max	ASTM D 573
Compression Set - 22 Hours	30 %	ASTM D 395
Low Temperature Flexibility	Should be Flexible at - 40C	ASTM D 1053
Ozone Resistance 50 pphm X 40C X 20% Elongation	No Cracks	ASTM D 1149

# RUBBER SPEED BUMP

PRODUCT	PART	DIMENSIONS	ACCESSORIE	PICTURE
 <p><b>50 MM (10 MPH)</b></p>	Mid section	350*250*50 mm	LagBolt M12*150mm	
	End Cap	350*180*50 mm	Anchors 16*140mm	



- \*Skid proof surface manufactured from durable vulcanized rubber.
- \*Alternating Yellow and Black color modules.
- \*Reflective cat eye for day and night visibility.

\*standards:ASTM F-477 BS 681-1



## QUALITY CONTROL FACILITIES

THE FORCE WHICH WE WORKS BEHIND THE ACHIEVEMENT AND THE CONFIDENCE OF SRP IS ITS ADVANCED RESEARCH AND DEVELOPMENT CENTER EQUIPPED WITH SOPHISTICATED INSTRUMENT THIS ENSURES MINIMUM LEAD TIME FOR DEVELOPMENT,SUPPORT VALUE ADDITION WITH CONSISTENT QUALITY SUPPLY.

ALL PRODUCTS APPROVED THROUGH PRODUCTION JOURNEY FROM RAW MATERIAL TO FINAL PRODUCT 24/7 RUNNING TESTS.

PRODUCTS HAVE BEEN CERTIFIED GLOBALLY ,ALL RAW MATERIALS ARE REQUIRED FOR INCOMING INSPECTION. ALL PRODUCTS HAVE TO PASS- THROUGH WITH QUALITY CONTROL CHECKS AS FIRST PIECE ,IN PROCESS AND FINAL BEFORE RELEASE.



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# CERTIFICATE

Management system as per  
**ISO 9001 : 2015**

In accordance with TÜV NORD CERT procedures, it is hereby certified that



**Saudi Rubber Products Factory**  
1st Industrial City, Buraydah, P. O. Box 5033  
51422 Al Qassim  
Kingdom of Saudi Arabia

applies a management system in line with the above standard for the following scope

**Manufacturing and supply of rubber gasket, O rings, lip seal, insulation foam tubing system, foam sheets for air-conditioning and other pipes & fittings seal elements**

Certificate Registration No. 44 100 16570016  
Audit Report No. 5700 3023

Valid from 2019-05-26  
Valid until 2022-05-25  
Initial certification 2016

Certification Body  
at TÜV NORD CERT GmbH

Dammam, 2019-05-26

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH

Langemarckstraße 20

45141 Essen

www.tuev-nord-cert.com





# Certificates






مجلس الغرف السعودية  
Council of Saudi Chambers

## MEMBERSHIP CERTIFICATE

### شهادة عضوية

يشهد مركز الترقية السعودي بأن المصنع السعودي للمنتجات المطاطية

عضو في المركز بعضوية رقم / 6285514

للفترة من 1441/05/05 إلى 1442/05/16 الموافق 2020/01/01 إلى 2020/12/31



مدير  
مركز الترقية السعودي

www.gsi.org.sa

gs1@csc.org.sa

This document is auto generated  
تم إنشاء هذا المستند تلقائياً



Certificate No.: MA200918C17  
TUV Reference No.: TRA/7001918.001  
Report Date: 28.10.2018

### Inspection Certificate

We as TÜV Rheinland certify that the goods stated in the below referenced invoice have been subject to visual inspection to confirm their quantity, quality, packaging and marking as per provided documents and have found satisfactory and in good condition.

<b>Shipper / Exporter:</b> SAUDI RUBBER PRODUCTS BERHADAWI QANSM INCORPORATED IN SAUDI ARABIA	<b>Consignee:</b> MOHIB, SHARHAM P/ CPC HASBA, IRAQ
<b>Reference Document:</b> 7021923-100	<b>Notify Party:</b> HASBA AL BILAR CO FOR CLEARANCE & TRANSPORT HASBA, IRAQ
<b>Port of Loading:</b> JEDDAH, KSA	<b>Port of Discharge:</b> SAFWAN, IRQ.
<b>Commercial Invoice No. / Date:</b> 605 / 20.10.2018	<b>Commodity:</b> RUBBER RINGS
<b>Date and place of inspection:</b> 28.10.2018 JEDDAH, SAUDI ARABIA	<b>Country of Origin of Goods:</b> KSA
<b>Quantity:</b> 24196 KG, 22 PALLETS	<b>Amount:</b> 33,740.00 USD

Item No.	Description of Goods, (Product/ Brand name, Model, Characteristics, Art. No.)	Quantity
0001	Rubber Rings Size 140 mm, Produced by: SRP.	10,000 Pcs
0002	Rubber Rings Size 200 mm, Produced by: SRP.	3,000 Pcs.
0003	Rubber Rings Size 220 mm, Produced by: SRP.	10,000 Pcs.
0004	Rubber Rings Size 3.15 mm, Produced by: SRP.	10,000 Pcs.
0005	Rubber Rings Size 630 mm, Produced by: SRP.	500 Pcs

**Inspection Results**  
Cargo inspected and shipped are according to the Specification mentioned in the invoice and found satisfactory.

**Conclusion**  
This Certificate is issued under the instruction of our Principals. This certificate is based on the findings recorded on the date and place of inspection only, and physical inspection conducted so, as it does not absolve the concerned parties from contractual obligations of any nature. This certificate is not intended to be used as a basis for any arrangements by a Consignee and does not relieve the seller/buyer from his contractual obligations towards the Inspector and towards Import/Exportation of respective country. This document is the responsibility of our Inspector of Findings.

**THIS CERTIFICATE IS NOT AN ICCIGI CERTIFICATE.**

For and on behalf of TÜV Rheinland




MG-001-3158, Revision 5 Page 1 of 1





EAR-CONTROLLED DATA  
April 7, 2020

PURPOSE

The purpose of this test report is to present the test results obtained during the performance of a test program. This report includes a brief description of the samples presented for test, a list of the documents presented as test instructions and a summary of the testing performed and the results obtained. Applicable requirements and conclusions are based on the criteria provided by our client, or as specified in the reference document(s). All results relate only to the items tested, as listed within this report.

WORK REQUESTED / REFERENCE DOCUMENT(S)

Ozone Resistance per ASTM F477 (14) and ASTM D1149 (16)

SAMPLE DESCRIPTION

One (1) type of sample (3 plaques) was presented by Saudi Rubber Products Factory Co. for testing. Sample, as received, was identified as follows:

- SRP Batch Code: SRP38S20C4B1

SAMPLE CONDITIONING

Prior to testing, the samples were conditioned at +23°C ±2°C and 50% ±5% relative humidity, as applicable.

TEST DATE(S)

Test Start Date	Test End Date
3/27/20	3/30/20

AL HOTY-STANGER		CLIENT: SAUDI RUBBER PRODUCTS FACTORY	TEST REPORT																								
		<b>52321, Buraidah-Al Qassim, Saudi Arabia</b>	<b>Test Report</b>																								
<b>Sample No.</b> SRP38S20C4B1 <b>Sample Description</b> SAUDI RUBBER PRODUCTS FACTORY <b>Company</b> SAUDI RUBBER PRODUCTS FACTORY <b>Facility Name</b> AL-HOTY-STANGER <b>Sample Collected By</b> Client	<b>Client Name</b> SAUDI RUBBER PRODUCTS FACTORY <b>Client Address</b> 52321, Buraidah-Al Qassim, Saudi Arabia <b>Client Contact</b> Client	<b>Sample No.</b> SRP38S20C4B1 <b>Sample Description</b> EPDM - ASTM F477 <b>Company</b> SAUDI RUBBER PRODUCTS FACTORY <b>Facility Name</b> AL-HOTY-STANGER <b>Sample Collected By</b> Client <b>Reference Test</b> Compression set (ASTM D395-18/ASTM F477-14)	<b>TEST RESULT</b> <table border="1"> <thead> <tr> <th>Sample No.</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Original thickness of specimen (t)</td> <td>mm</td> <td>4.50</td> <td>4.50</td> <td>4.50</td> </tr> <tr> <td>Final thickness of specimen (t')</td> <td>mm</td> <td>5.78</td> <td>5.77</td> <td>5.72</td> </tr> <tr> <td>Thickness of spacer used (t<sub>2</sub>)</td> <td>mm</td> <td>4.50</td> <td>4.50</td> <td>4.50</td> </tr> <tr> <td>CB Compression set (expressed in %)</td> <td>%</td> <td>25.8</td> <td>27.0</td> <td>28.9</td> </tr> </tbody> </table> <p>Average Result: % 24.00 CB = ((t<sub>2</sub>-t)/(t-t<sub>2</sub>))*100</p>	Sample No.	1	2	3	Original thickness of specimen (t)	mm	4.50	4.50	4.50	Final thickness of specimen (t')	mm	5.78	5.77	5.72	Thickness of spacer used (t <sub>2</sub> )	mm	4.50	4.50	4.50	CB Compression set (expressed in %)	%	25.8	27.0	28.9
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<b>Tested by:</b> HASAN BAWKAT, B.E. Senior Specialist Engineer, Specialist Department, AL-HOTY-STANGER LTD. CO. <b>Verified by:</b> SAYYED ASJAD HUSSAIN MBA, Department Head, Specialist Department, AL-HOTY-STANGER LTD. CO.																											



EAR-CONTROLLED DATA  
March 2, 2020

PURPOSE

The purpose of this test report is to present the test results obtained during the performance of a test program. This report includes a brief description of the samples presented for test, a list of the documents presented as test instructions and a summary of the testing performed and the results obtained. Applicable requirements and conclusions are based on the criteria provided by our client, or as specified in the reference document(s). All results relate only to the items tested, as listed within this report.

WORK REQUESTED / REFERENCE DOCUMENT(S)

Ozone Resistance per ASTM F477 (08) and ASTM D1149 (10)

SAMPLE DESCRIPTION

Types of samples (3 specimens) were presented by Element Saudi Arabia M003 for testing. Samples, as received, were identified as follows:

- EPDM Batch Code: EPDM20A24B16

SAMPLE CONDITIONING

Prior to testing, the samples were conditioned at +23°C ±2°C and 50% ±5% relative humidity, as applicable.

TEST DATE(S)

Test Start Date	Test End Date
2/18/20	2/21/20

AL HOTY-STANGER		CLIENT: SAUDI RUBBER PRODUCTS FACTORY	TEST REPORT																								
		<b>52321, Buraidah-Al Qassim, Saudi Arabia</b>	<b>Test Report</b>																								
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LGAI TECHNOLOGICAL CENTER, S.A.  
Campus LAB  
Barrio de la Font del Carme, s/n  
08193 Sabadell (Barcelona)  
Tel. 93 567 20 00 Fax: 93 567 20 01

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REPORT N°: 21/36600610

TEST REPORT ISSUED BY LGAI TECHNOLOGICAL CENTER, S.A.

CLIENT IDENTIFICATION DETAILS

NAME: SAUDI RUBBER PRODUCTS FACTORY CO.  
ADDRESS: QASSIM INDUSTRIAL CITY 32321  
CITY: SUKAILAH - QASSIM  
REGION: KING DOOM SAUDI ARABIA  
And on its behalf M: Tamer Hossni.

SAMPLE IDENTIFICATION DETAILS

PRODUCT: Sample rubber plates.  
REFERENCE: ref. SRR 21A-25-B4 EPDM 21A-25

NOTES: 30 photos sample.  
DELIVERY DATE: 09/12/2021

PHYSICAL AND CHEMICAL TEST LAB.

Start: 08/02/2021 Finish: 16/02/2021

REQUESTED TEST

Oxone resistance.

REFERENCE

ASTM D 1149 standard.

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REPORT N°: 21/36600610

---RESULTS---

1- Oxone resistance test as per ASTM D-1149

The oxone resistance test has been made in a OTCO Jome d'arabes, model OTCM 100 serie number DM 532 with the following characteristics:

Concentration: 50 ppm

Temperature: 40°C

MOISTURE: 40 %

Obtained values:

Reference SRR 21A-25-B4

After being the samples in the atmosphere during 72 hours, we not appreciate fissures at 2x.

Reference EPDM 21A-25-B5

After being the samples in the atmosphere during 72 hours, we not appreciate fissures at 2x.

ALBERTO ALIER GARCIA  
Firma digitalmente por ALBERTO ALIER GARCIA  
Fecha: 2021.02.16  
20:18:56 +01'00'

Alberto Alier Garcia  
Technical Responsible of the test  
Sabadell, February 16<sup>th</sup> 2021

Service quality guarantee

Applus+ guarantees the service was done according to our own quality and sustainable system. Complaints, conditions and legal requirements have been accomplished. In relation with our service improvement plan, any appropriate comment from our clients would be welcome. In this case, contact with the responsible of this report or also to the Applus+ quality manager in the email: [satisfaccion.cliente@appluscorp.com](mailto:satisfaccion.cliente@appluscorp.com)

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The results are referred only to the sample, product or material delivered to the Laboratory.  
Marco de registro de Barcelona, Volume 26.802, page 1, sheet 0996-097, register 19.484.661.201/402.

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Annex 3



Photograph sample SRR after oxone resistance test.

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REPORT N°: 21/36600610

Annex 4



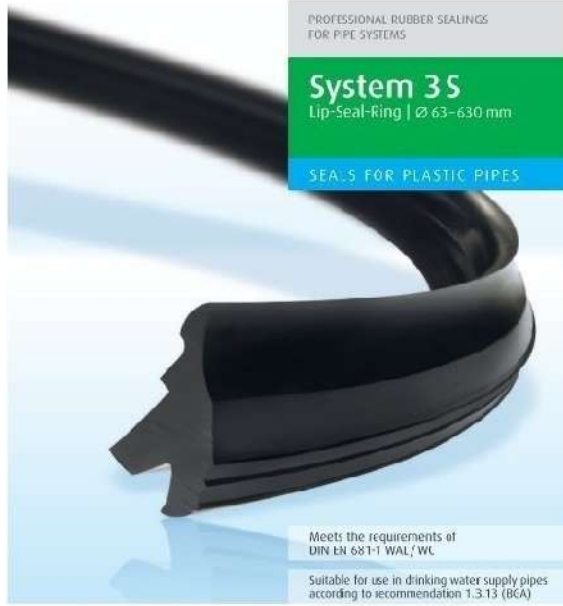
Photograph sample EPDM after oxone resistance test.

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**SRP** 

المصنع السعودي للمنتجات المطاطية  
Saudi Rubber Products Factory

الوسائل  **ALWASAIL**

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