

CONFIND manufactures rubber products for different temperatures and environments whose physic-mechanical characteristics meet the standards in force.

### USER GUIDE

#### Standard SR 7278- Rubber seals resistive to oil environments

CLASSIFICATION	Elastomer TYPE	Operation environment	Operating temperature range	Hardness, °ShA
Class PF (PN)	Butadiene-Acrylonitrile Rubber	Average resistance to petroleum products	-30 ÷ 110°C -46 ÷ 90°C -20 ÷ 100°C	75° ±5 73° ±5 85° ±5
Standard CONFIND	Hydrogenated Nitrile Rubber	Good resistance to petroleum products	-50 ÷ 150°C	75° ±5 80° ±5
Class PE (PC)	Chloroprene Rubber	Average resistance to petroleum products	-25 ÷ 100°C	75° ±5
Class PTH (PTS)	Silicone Rubber	Average resistance to petroleum products	-50 ÷ 200°C	65° ±5 75° ±5
Class PTI (PTF)	Fluorinated Rubber	Very good resistance to petroleum products	-25 ÷ 200°C	75° ±5 85° ±5

Note: textile inserts or iron core that goes into gaskets are agreed between manufacturer and customer.

#### STAS 11069-84- Textile rubber seals, resistive to oil environments

SEAL CLASSIFICATION	TYPE of textile	Operation environment	Operating temperature range	Hardness, °ShA
C	Canvas type 370 100% cotton	Average resistance to petroleum products	-30 ÷ 100°C	90° ±5
D	Canvas type 220 100% cotton			90° ±7
CONFIND Standard	GOLF canvas, 100% polyamide			90° ±7

#### STAS 7277-86-GENERAL USE RUBBER GASKETS NON-RESISTIVE TO PETROLEUM RODUCTS

CLASSIFICATION	Elastomer TYPE	Operation environment	Operating temperature range	Hardness, °ShA
Class 40	Natural rubber; styrene butadiene rubber; reclaimed rubber; combination of them	Air	-40 ÷ 70°C -50 ÷ 70°C	40 ±5
Class 50				50 ±5
Class 60				60 ±5
Class 70				70 ±5

Note: textile inserts or iron core that goes into gaskets are agreed between manufacturer and customer.

## STAS 7320/1-85-RUBBER O-RINGS FOR SEALING

CLASSIFICATION	Elastomer TYPE	Operation environment	Operating temperature range	Hardness, °ShA
Type FO	Butadiene-Acrylonitrile Rubber	Average resistance to petroleum products	-35 ÷ 110°C -46 ÷ 90°C	75° ±5 73° ±5
CONFIND Standard	Hydrogenated Nitrile Rubber	Good resistance to petroleum products	-50 ÷ 150°C	80° ±5
Type HO	Silicone Rubber	Average resistance to petroleum products	-55 ÷ 200°C	65° ±5 75° ±5
Type IO	Fluorinated Rubber	Very good resistance to petroleum products	-25 ÷ 200°C	75° ±5 85° ±5

## STORAGE GUIDE

### INTRODUCTION

Many components and rubber products are stored for long periods before being used and therefore it is important that they be stored under conditions that minimize the undesirable changes in their properties. Degradation of rubber products means increased or decreased hardness, cracks and other surface faults. Other changes may be caused by deformation, contamination or mechanical damage.

Some rubber products are more likely than others to damage under the influence of the following factors:

- Heat
- Light
- Ozone
- Oxygen
- Humidity

Therefore it is recommended to minimize exposure to these factors, in order to extend the storage life by a storage control system, proper packing and inspection.

### Terms and definitions

**Initial storage period** - the maximum period starting from the date of manufacture during which a rubber item properly packed can be stored, as specified in the documents accompanying the product.

**Extended storage period** – period during which a rubber item properly packed can be stored, after initial storage period, before requiring a thorough inspection and re-trial.

**Preservation period** - the maximum period of time during which a rubber item can be stored, packaged properly and following which is deemed unusable for the initial purpose.

**Aging** - irreversible changes in the material properties when exposed for a period of time in the environment.

## Classification of rubber types according to their relative sensitivity to damage

GROUP A			GROUP B			GROUP C		
Rubber with moderate sensitivity to damage by aging			Rubber with low sensitivity to damage by aging			Rubber with high sensitivity to damage by aging		
BR	Butadiene rubber	Polybutadiene	NBR	Butadiene-Acrylonitrile Rubber	Nitrile	EPDM	Terpolymers of ethylene, propylene and a diene, with an unsaturated rest of diene at the chain end	EPDM
NR	Natural rubber	Natural rubber	HNBR	Hydrogenated Nitrile Rubber	Hydrogenated nitrile	FKM	Fluorinated rubber	Fluorocarbon
SBR	Styrene butadiene rubber	SBR	CR	Chloroprene Rubber	Neoprene	Q	Silicone rubber	Silicon

### PACKING

Rubber products are packed in:

- individual sealed packages;
- individual sealed bags;
- introduced in a common package;
- in polyethylene film and placed in container (wooden crates, cardboard boxes).

### LABELING

The label is applied on the package with visible information from the outside, without breaking the seal:

- a. Item code;
- b. No. Of product specification; Polymer type;
- c. Date of manufacture;
- d. Classification of the type of rubber;
- e. Amount in the package;
- f. Identity of the manufacturer;
- g. Batch number or similar information to identify production.

### Storage conditions for rubber parts :

- **TEMPERATURE**

Beneficiary shall store the products in the supplier's package, in ventilated areas, at a temperature between 18 and 25 °C, away from direct heat without direct exposure to sunlight.

Note: Rubber products stored at lower temperature than indicated above must be put into operation only after they have been brought forward at ambient temperature.

- **MOISTURE**

It must be avoided the storage in damp conditions, keeping a constant temperature that does not lead to condensation of water vapors.

- **LIGHT**

Rubber gaskets must be protected from sunlight and the strong artificial light, with a high ultraviolet radiation.

For the seals protected by non-opaque packaging, the warehouse windows must be painted in red or orange color.

## GUIDE FOR THE USE AND STORAGE OF RUBBER GOODS

- **OXYGENE AND OZONE**  
Seals will be stored in protected package in order to be protected from the air circulation in the warehouse.  
It is prohibited to use electrical appliances in the warehouse (mercury vapor lamps, high-voltage electrical equipment) to avoid the formation of ozone.  
Ozone is particularly harmful to rubber.
- **DISTORTION – STORAGE**
  - Seals are supplied in opaque plastic bags with identification tags.
  - Packages are placed upright on the shelf up to maximum 3 rows.
  - It is recommended to store the rubber parts without simultaneous tension and compression stresses or other factors that cause deformation.
- **CONTACT WITH LIQUID AND SEMILIQUID MATERIALS**
  - During storage, the seals should not come in contact with liquid and semi-liquid material, especially with solvents, oils and fats or their vapors throughout the storage.
  - In the vicinity of seals will not be stored fuels, lubricants.
- **SEALS CLEANING**
  - Rubber gaskets will be cleaned only by water and dilute solutions of soap and then dried at ambient temperature.
- **STOCK ROTATION**
  - It is recommended to remove the rubber items from storage by a strict rotation, so that the items remaining in the warehouse be the most recent fabricated or delivered ones.

### STORAGE PERIOD

GROUP CLASSIFICATION	INITIAL STORAGE PERIOD	EXTENDED STORAGE PERIOD
A	5 years	2 years
B	7 years	3 years
C	10 years	5 years
NOTA-If the storage temperature is above or below 25°C, it will influence the storage period. Storage at a temperature by 10°C higher will reduce the storage period by approximately 50% and a storage temperature less than 10°C would increase the storage period by approximately 100%.		

**TRANSPORT** – by covered transport means.