RECOMMENDATIONS FOR THE STORAGE OF ELASTOMER SEALS

The properties of vulcanised elastomer or polymer-based products deteriorate gradually over time due to an ageing process which varies depending on the base elastomer. That ageing is characterised by variations in the physico-chemical properties of the material. These alterations can result from the action of oxygen, heat, light or humidity, radiation or any other phenomenon that may affect the properties of this type of material.
It is possible to limit these alteration effects by observing the instructions listed below:

GENERALE GUIDELINES:

Avoid sharp tools when unpacking (cutter, forklift truck forks).
Store the products in such a way that the oldest ones are used first (FIFO).

STORAGE CONDITIONS:

1. PACKAGING AND DEFORMATION

Wherever possible, it is preferable to leave the seals in their original packaging, thus limiting any contact with the outside environment (fluids, dust, air, UV, light).

For long-term storage of large diameter seals that are rolled up for packaging and transport, it is preferable to lay them out and cover them with a waterproof and opaque tarpaulin to protect them from light, air and soil*. Rolling up the seals can cause irreversible deformations and/or marks on sensitive areas, depending on the size of the seals and their profile.

It is also recommended to place the seals in a dedicated space to avoid any unintentional crushing (falling objects, areas where operators can pass through...).

2. LIGHT

The products must be kept away from light, in particular direct sunlight or artificial light with a strong UV intensity.

3. TEMPERATURE

The storage temperature must be within the range of 15°C to 25°C and the products must be kept away from direct sources of heat. Products stored at low temperatures become stiffer and need to be "warmed up" before being assembled and commissioned. Wherever possible, it is recommended to store the products in a dedicated room where the temperature is as constant as possible.

4. ATMOSPHERE

The optimum relative humidity is 65% (55-70% is reasonable). Any ventilation should be as low as possible. Avoid draughts. The air must not contain aggressive vapours (solvents, acids, etc.). Ionising radiation and ozone are particularly harmful. The vicinity of mercury vapour lamps, high-voltage electrical equipment, spark generating devices, etc. is also prohibited.

5. CONTACT WITH FOREIGN MATERIALS

As a general rule, it is recommended to avoid any contact of any substance with the seals during storage periods, be it fluids, greases, powders, metals (copper, manganese) known to have harmful effects on elastomers.

6. STORAGE LIFE

It is generally recommended to minimise the storage times of elastomer products as much as possible.
However, if storage is necessary, the commonly accepted lifetimes in accordance with *ISO2230 v2002 RUBBER PRODUCTS – Guidelines for storage* are given in the table below. We draw your attention to the fact that these values are purely for information purposes. They are applicable for small standard seals that can be stored flat.

GROUP OF ELASTOMERS	***STORAGE LIFE:***
NR IR, SBR, AU, EU GROUP	3 YEARS
NBR, XNBR, HNBR, CR GROUP	5 YEARS
EPDM, FPM, VMQ, PTFE, PU GROUP	10 YEARS

WARRANTY

In the event of proven seal failure, the warranty provided by PXL Seals is valid for one year from the date of delivery, and shall be strictly limited to the value of the seals delivered.
In the event of a complaint, please send us all the product references (label, marking of the seals).
If possible, return defective products to us for analysis.

* Soil: oils and petroleum derivatives, solvents, acids, dust, etc.