

TIZIP RescueSeal

MADE IN GERMANY



Technical Datasheet

Dated: June 2007

Applications:

- Immersion suits
- Survival suits

Tightness

The **TIZIP RescueSeal E** is pressure tested with 250 mbar air pressure, the **TIZIP RescueSeal S** is pressure tested with 700 mbar air pressure applied to the front surface including the end stop. The slider engages positively into the docking end. **Heavy bending may cause leakage. Please try to avoid!**

Testing

The sealing function of the **TIZIP RescueSeal** is tested by fastening the zipper in a straight rectangular frame, 3 cm wide, face down. Compressed air is applied to the front side of the zipper and water poured over the back until it is submersed. To pass the test no air bubbles may occur for a period of 20 seconds. Random testing is performed during the production of every batch.

Storage and Transportation

For storage, long- and short term and during transportation we recommend to leave the zipper chain closed. The closed chain protects the sealing lips and makes them more resistant to bending. **High humidity and temperatures over room temperature must be avoided!**

Before and after long term storage and prior to using please open the chain completely, relubricate chain tips and docking end seal and operate the slider a few times over the full length.

Operating Force

The large red puller of the **TIZIP RescueSeal** allows comfortable operation even with neoprene gloves. A wet surface or lubricant on the outer flanges of the sealing profile reduces the pulling force greatly.



The technical principle

The **TIZIP RescueSeal** is made from a strong, plastic coil zipper on a high strength fabric. Every coil half is safely embedded and secured in a plastic profile.

When the **TIZIP RescueSeal** is closed the sealing lips above and below the coil are compressed making a perfect seal. The entire plastic profile is highly abrasion resistant. The unique design prevents the slider from wearing down the sealing lips when the zipper is opened or closed.

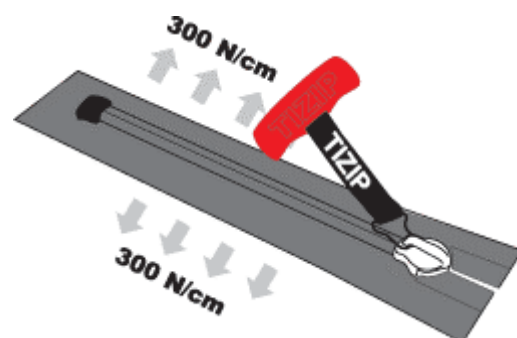
The physical design of the **TIZIP RescueSeal** increases the seal strength when the pressure is raised or when cross tension is applied. Both actions lead to an increased mechanical pressure on the top sealing lip.

Dirt or Sand

The **TIZIP RescueSeal** is highly resistant to damage caused by dirt or sand. However if dirt or sand are present, the zipper should be cleaned with soap and water. Dirt particles can affect the sealing function if they get caught between the chain profiles. If the **TIZIP RescueSeal** closure is used to protect life or sensitive material, the sealing function and cleanness of the chain area should be double checked prior to every usage.

Stability

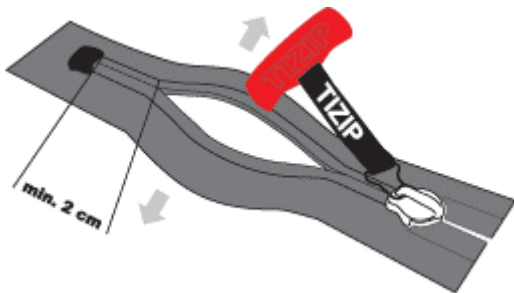
The **TIZIP RescueSeal's** performance in terms of strength and durability is outstanding. It can take weight, it is abrasion resistant and it will survive short term sharp bending and twisting without separating. When closed, the **TIZIP RescueSeal** has a cross-breaking strength of minimum **300 N/cm**.



Over-Stressing

However, in the event the TIZIP is over-stressed during closing, the chain may stay separated. In this case, simply move the slider back, reduce the cross tension, then reclose the zipper. The TIZIP will **not be damaged** by this procedure.

If the zipper has opened all the way down into the bottom stop, the first min. 2 cm have to be closed by hand before the slider is pulled back.



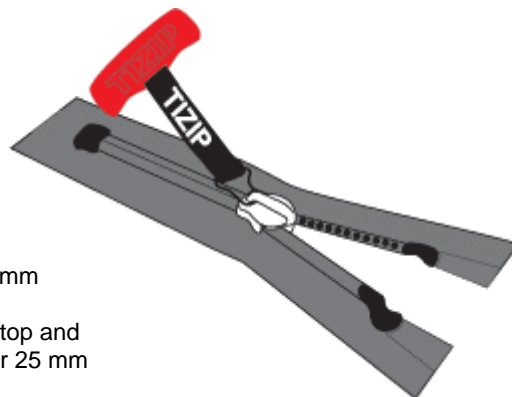
Lubrication

Prior to installation in a product, no lubricant is applied to the TIZIPs. However, lubrication is essential to maintain the ease of operation and proper coupling of the chain. After installation into a product, manufacturers are requested to lubricate the TIZIP all along the chain tips, and to operate the slider the full length of the chain, in both directions, at least 5 times. Acid free, grease or oil lubricants may be used. **Initial lubrication and operation is essential for the full strength of the seal!**



If the chain is dry, re-lubricating by the user is recommended from time to time (apx. every 10 uses). Please see the instruction card and lubricant tube supplied with each TIZIP. Lubricating the outer flanges of the sealing profile reduces the sliding force greatly.

Versions



RescueSeal E (250 mbar)



RescueSeal S (700 mbar)

Width: 50 mm und 70 mm
Chain width: 11mm
Extensions over end stop and docking end: 16 mm or 25 mm

Resistance

UV-light	Very Good
Microbes	Satisfactory
Oil and petrol	Very Good
Hydrolysis (normal temperatures)	Good
Hydrolysis (extreme temperatures and humidity)	Sufficient
Temperature range	-30°C - +80°C
Light acids and alkalis (normal temperature)	Good



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