



Drysuit Repair Instructions

These instructions describe the basic processes for replacing seals and repairing holes on our **O.S. Systems** drysuit. With these few pointers, you can accomplish your own professional quality repairs and save money. The most important step is to use only **PB-300** glue. **PB-300** is designed specifically for gluing drysuits.

Supplies Needed

Well ventilated work area (preferably devoid of birds, cats, dogs, small children, etc.)	PB-300 glue**
Infrared heat lamp	Repair molds**
Soap and water solution	Replacement seals**
Cloth rags (white, lint free)	Rubber or plastic roller
Rubber gloves, protective eye wear, respirator v (all rated for working with MEK)	Masking tape
Methyl Ethyl Keytone (optional) Read and heed all warnings on can!!	Acid brushes

[\(** items available from OS Systems\)](#)

Removal Of Old Seals

First, using a standard soap and water solution, thoroughly clean and dry the seal and the nylon around the area where the old seal is glued. This will keep any silicone or contaminates from interfering with the gluing of the new seal. Also clean and dry the area of the new seal that is to be glued. You can either remove the old seal entirely, or cut the old seal off at the edge of the nylon, leaving a band of the old rubber still glued to the nylon. Both will work fine. If you cut the old seal off, be careful not to cut the nylon. You will be gluing the new seal over the band of old rubber. Removing the whole seal is easy. Simply soften the glue by the gradual application of heat, or Methyl Ethyl Keytone (MEK), a solvent. Either process will cause the glue to soften, and the old seal can be peeled off carefully. Heat can be applied with an infrared heat lamp or by a hair dryer. Be careful not to burn your fingers. Do not use an open flame to apply heat. MEK can be applied with an acid brush. Both MEK and the acid brushes are usually available in local paint stores. Be careful to only use the MEK as the instructions on its can indicate. Do not bring the glue, or the MEK, near an open flame, or near any sparks. Both are flammable and can cause injury if not used properly.

Seal Positioning

Insert the **O.S.** repair mold in the sleeve of the drysuit, allowing the mold to stick out about 3- 4 inches through the end. Position the new seal over the end of the mold and on the sleeve where it will be glued. Fold the edge of the new seal back up the mold so that both the seal and the nylon areas to be glued are exposed. Apply masking tape around the nylon sleeve just below the gluing area, and on the new seal, behind the folded back portion. This will keep excess glue from running down and messing up your suit or the seal.



Surface/Seal Preparation

If the old seal has been completely removed, you will be gluing the new seal directly to the nylon of the drysuit. Do not remove the base coat of old glue that is left on the nylon. Do remove any large bumps left in the old glue by reapplying heat, or MEK, until the glue softens, and then wiping with an acid brush. Apply two thin coats of **PB-300** over the old glue to smooth out the surface of the gluing area. Allow each coat to dry before applying the next coat. If you have left the band of old rubber still attached to the nylon, you will be gluing the new seal directly over the old seal. Lightly wipe the surface of the old rubber with MEK, if available. Apply two thin coats of **PB-300** over the old seal, as described above. The inside of the new seal needs to be prepared also. Do not rough up the rubber. **OS Longlife Latex** seals are specially treated to be glued, using **OS Systems' PB-300** glue without being roughed up. Lightly wipe the surface to be glued with MEK, if available. Apply two thin coats of **PB-300** to the area to be glued, letting each coat dry before applying the next coat.

Attachment

Apply one thicker coat of **PB-300** to the nylon. While the **PB-300** is tacky, roll the edge of the seal down over the nylon sleeve, positioning the seal where it needs to sit. The wet **PB-300** will cause the dry and wet glues to bond together. Use the roller to gently work out any bubbles or wrinkles, making sure the seal fits smoothly on the sleeve. If your seal is not placed perfectly, reapply heat and gently adjust the position. The seal should remain on the mold for at least 1/2 to 1 hour to allow the glue to set up. Once the glue is dry, remove the mold and turn the sleeve inside out. Apply a bead of **PB-300** around the edge on the inside, where the seal meets the nylon. Allow this to dry thoroughly. If you move the drysuit before the **PB-300** is dry, the glue could stick to another part of the drysuit. Check the edges of the seal by picking at them with your fingernails. If any area comes up, reapply a small quantity of glue to the lifting area. Excess glue can be wiped off with MEK. The neck seal is applied flat. All other steps are the same.

Patching Fabric Holes

The same basic procedure, with **PB-300**, is used to patch holes in the fabric of your drysuit. All fabric holes are patched on the inside, polyurethane to polyurethane. With MEK, clean the polyurethane surface of both the inside of the drysuit, and the patch. Apply several thin coats of **PB-300** and press the two polyurethane surfaces together. Apply a thin bead of glue around the edges of the patch to avoid snagging.

Tips and Warnings

MEK is a very useful solvent. It can be used to remove any excess **PB-300**, to thin the **PB-300**, to remove seals, to clean all areas prior to, and after, gluing. Use only in accordance to the instructions provided with purchase. **PB-300** contains the solvent MEK. Both **PB-300** and MEK need to be handled correctly.

Use only in a well ventilated work area. Wear protective rubber gloves, and eye wear. Do not expose to open flames or sparks. Store in a cool, dry place. Acute overexposure to fumes can cause drowsiness, nausea, dizziness, and eventually systemic damage. Skin contact overexposure can cause drying, cracking, and defatting. Ingestion can cause cramps, loss of consciousness, and systemic damage.

First aid for excessive exposure to fumes is fresh air and water. First aid for excessive exposure to skin contact is washing with cool water. First aid for ingestion is to keep still and call for medical help.

DO NOT INDUCE VOMITING! In all cases, contact medical doctors immediately.