castaldo®

The Choice of Experience

Jewelry Molding Rubber White Label WL®

Technical Datasheet & Molding Instructions

Name	White Label WL®
Shore A Hardness	**42 +/- 2**
Vulcanizes at	**307°F / 152°C**
Rubber Shrinkage	**2.3%**
Break Elongation	**688%**
Break Tensile Strength	**Very Strong** **2,215 psi** **15.3 n/mm²**
Break Tear Strength	**137 lb./in.** **24 n/mm²**
Uses	**Strong, Firm Molds**

*Shrinkage rates given are for the rubber mold itself. Final casting shrinkage rates depend on moldmakers and caster's skill, knowledge, precision and attention to detail.

Castaldo White Label® comes packed in 50 lb / 22.7 kg strong and convenient roll dispenser boxes and 5 lb / 2.27 kg convenient rolls packed in consumer oriented tubes.

Mold Frame Packing

The polished cloth backing supplied with Castaldo Jewelry Molding Rubber may be left on the top and bottom pieces packed in a molding frame, either to insure cleanliness or to provide a surface for writing on. Some workers use the cloth to sketch out the model inside as an aid to mold cutting and identification. The cloth will peel off easily after vulcanization. It will not melt or burn at recommended temperatures. The blue plastic liner supplied on some forms of Castaldo Jewelry Molding Rubber must, however, be removed completely before vulcanization. To insure the proper flow of rubber into the model, it is suggested that you pack one additional thickness of rubber in each frame. Thus a 3/4 inch (19 mm) mold frame, which would otherwise take six thicknesses of rubber, should be packed with seven. Sizeable cavities in models should be packed with scraps of rubber, taking care to use tweezers or other tools rather than bare fingers.

Attempt to place the jewelry model in the center of the mold with as many thicknesses of rubber above the model as below it.

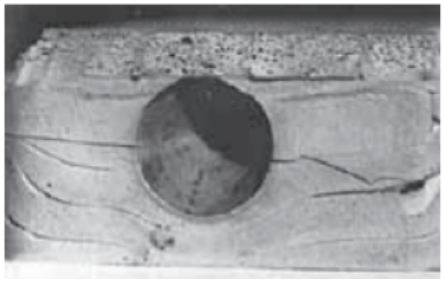
Overpacking of the model frame or excessive pressure can often result in extremely dense, hard and difficult to cut molds. Sometimes these molds have an excessively springy quality as well.

Castaldo (a division of Goodwin Refractory Services Ltd)
Spencroft Road, Newcastle-under-Lyme, Staffordshire, ST5 9JE

www.castaldo.com
info@castaldo.com

Three signs that a mold has been under-packed are:

1. The appearance of separate layers of rubber along the edges of the finished mold.
2. A sponge rubber-like appearance caused by thousands of tiny air bubbles.
3. Large pits or depressions in the top and bottom surfaces of the mold. Two of these conditions are illustrated in the accompanying photograph.



Pre-heat the vulcanizer until it reaches the proper temperature and then place the loaded mold frame between the vulcanizer plates. Let it rest there for a few moments, but not longer than 3 minutes. Tighten the vulcanizer press slowly, avoiding extreme pressure. Do not tighten beyond what can be done by hand as delicate models can be bent by the resulting internal pressure. Expect to see some rubber flow out of the mold frame as vulcanizing progresses. If this does not occur, the mold frame is probably underpacked and subsequent frames should be packed more fully. After the first few minutes of vulcanization, some workers prefer to "bump" the molds - releasing pressure for a moment no later than the first 3 or 4 minutes to let out accumulated air pockets and then retightening the vulcanizer press. Check the tightness of the vulcanizer occasionally during the first 10 minutes of vulcanization and tighten as necessary. Slow cooling of the mold after vulcanization has ended is suggested, but if speed is necessary, the mold can be plunged directly into cold water without ill effects.

Vulcanization

Optimum results are achieved at a vulcanization temperature of 307°F (152°C). Calculate vulcanization time as follows: 7.5 minutes for every thickness (1/8 inch or 3.2 mm) of mold rubber, with a minimum time of 30 minutes and a maximum time of 75 minutes. Thus a 3/4 inch mold (19 mm) consisting of six thicknesses should be vulcanized for 45 minutes (6 x 7.5). A half inch mold (13 mm) should be vulcanized for 30 minutes (4 x 7.5).

Castaldo Jewelry Molding Rubber will normally flow into and around the most intricate and detailed parts of a jewelry model. In the unlikely event that difficulty is experienced, however, it is advisable to reduce vulcanization temperature to 290°F (143°C) and double the recommended vulcanization time. This will allow a longer period for the rubber to flow in semi-liquid form. Poor flow is also a symptom of too high vulcanizing temperatures. Do not rely on thermostat dials but check your vulcanizer with a reliable thermometer instead.

Recommended Vulcanization Times:

Mold Thickness	Number of Rubber Pieces	Temperature 307°F (152°C)
½ Inch or 13mm	4	30 Minutes – Minimum
5/8 Inch or 16mm	5	37 Minutes
¾ Inch or 19mm	6	45 Minutes
1 Inch or 25mm	8	60 Minutes
1 ¼ Inch or 32mm	10	75 Minutes
1 ½ Inch or 38mm	12	75 Minutes - Maximum

Complete instructions are available www.castaldo.com.