

Mold Making Research

Danny Janovec

◦ **Definitions:**

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- Molding or moulding is the process of manufacturing by shaping pliable raw material using a rigid frame or model called a pattern.
en.wikipedia.org/wiki/Mold_making
- (Mold maker) Moldmaker (mouldmaker in British English) is the designation for a profession in the metalworking and ceramics industry. It is a variety of the profession of the toolmaker. The moldmaker produces molds for the injection molding (plastics), die casting (e.g. ...
en.wikipedia.org/wiki/Mold_maker
- The act or process of making molds. Necessary for reproducing or transferring a three-dimensional pattern into a rigid or soft material.
www.monstermakers.com/content/glossary2.html

Terminology:

http://www.smooth-on.com/faq_display.php?faq_id=27

-discusses the different terms in mold making.

Ex. **Accelerator** - A material which, when mixed with liquid rubber (Kick-It™) or liquid plastic (So-Cure™), will speed up the chemical reaction between the catalyst and resin.

Air-Bubble Void - Air entrapment that has occurred either on the surface or within mold rubber or casting.

Air Vent - A small outlet designed as part of the mold, to prevent entrapment of gases.

Ambient - The surrounding environmental work conditions such as pressure or temperature.

Barcol Hardness - A hardness value obtained by measuring the resistance to penetration of a sharp steel point under a spring load. The instrument, called the Barcol Impressor, gives a direct reading on a 0 - 100 scale. The hardness value is often used as a measure of the degree of cure of a plastic.

Bond Strength - The amount of adhesion between bonded surfaces; a measure of the stress required to separate a layer of material from the base to which it is bonded.

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Catalyst - A substance which changes the rate of a chemical reaction without itself undergoing permanent change in its composition; a substance which markedly speeds up the cure of a compound when added in minor quantity as compared to the amounts of primary reactants.

Cavity - Depression in mold; the space inside a mold wherein a casting medium is poured; the molded article; which forms the outer surface of the molded article (often referred to as the die); also, the space between matched molds.

Compression Mold - A mold which is open when the material is introduced, and which shapes the material by heat and by the pressure of closing. Also "compression molding."

Compression Set - Measures the resistance of material to permanent deformation. In this test, a rubber pellet is squashed to 75% of its original height, kept at that deformation for 22 hours. It is then released and allowed to return to its original height. The value reported is the percentage not returned to the original height. The smaller the number the better.

<http://www.alumilite.com/howtos.cfm>

Examples on how to cast molds with risen
-A lot video tutorials!!



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Arkahdia Arts designs molds for home décor, statues, busts, and many other items.

http://lowprice4u.com/Old-Man-Winter-West-Wind-wall-planter_021597t.asp



http://statues-columns.com/Three-Cherub-Victorian-Pedestal_09597t1.ASP

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Arkahdia Arts vase



This Item is recently casted in a hydrostone plaster mix and can either be used directly or finished to your tastes. Please visit our [Faux Finish](#) page for more info.