

Hydrogel® N Mold Compound

DESCRIPTION: Hydrogel® N is a dry, white powder that when mixed with water at a 3 parts water to 1 part Hydrogel N by weight ratio (approximately 1 water to 1¼ Hydrogel N by volume) yields a creamy mix with a 5-minute working time. Working time may be extended using the optional liquid retarder described below. Demolding can be done, with care, 2 to 3 minutes after mix can no longer be worked.

MODEL PREPARATION: Hydrogel N can be poured on most surfaces with minimal preparation, but a small test cure should be made prior to use to be sure Hydrogel N releases cleanly and does not damage water sensitive surfaces. A thin coat of petroleum jelly or Pol-Ease® 2300 release agent will seal most questionable surfaces adequately.

MIXING AND CURING: Weigh or measure proper amounts of Hydrogel N powder and room temperature water. Mix together rapidly, but avoid whipping in air. A turbo mixer on a variable speed drill is recommended. Thicken with more powder, thin with more water. Apply to surface with a flowing motion, pushing air ahead of material. Optional liquid retarder may be premixed with water to extend working time.

Hydrogel N bonds to itself if the previous mix is not completely gelled. Thus, a large mold requiring more than one mix should be made by mixing a series of mixes within 5 minutes of one another. Wiping a saturated solution of water and baking soda (sodium bicarbonate) on gelled Hydrogel N will aid bonding of a fresh mix to gelled material. Food color added to the bonding solution aids knowing where it has been applied. As soon as Hydrogel N is firm, mix and apply a mother mold of plaster. When plaster shell is set, remove the Hydrogel N mold and for best dimensional stability, immediately make a positive casting.

Hydrogel N Retarder can be added to the water before mixing it with Hydrogel in order to slow the cure. The table below shows the impact of Retarder addition on cure time. [Note: If Hydrogel N Retarder freezes, warm the container under running water and shake until a clear liquid results.]

FEATURES

- Non-toxic-- Safe for body casts
- Easy to use: just add water and mix
- Good reproduction of fine detail
- Early strength for fast demold
- Variable working time
- Low cost



Hands up and on the table! With the use of Hydrogel®N, these children each made a plaster cast of their own hand at a Vacation Bible School craft session. Molds for 35 hands were made in less than 2 hours!

USING THE MOLD: Plaster or waxes below 212°F may be poured in Hydrogel N molds. Castings should be made in freshest possible molds for best results. Hydrogel N molds will shrink as they dry. Molds may be kept useable in plastic bags or sealed containers for up to a few days. Molds should then be discarded

SAFETY: Before use, read product label and Material Safety Data Sheet. Follow safety precautions and directions. Handle Hydrogel N carefully to avoid dust generation. Wear a dust mask. Avoid eye contact. Hydrogel N is not for human consumption or use against mucous membranes. Keep skin contact as brief as possible. Prior to placing Hydrogel N on hair, hair should be slicked down with petroleum jelly or cholesterol hair conditioning cream.

STORAGE LIFE: At least six months in unopened containers stored at room temperature (60-90°F).

LIQUID RETARDER (OPTIONAL)	
% Retarder in Water	Approximate Working Time
0	5 min
3	7 min
6	8 min
9	10 min

PACKAGING		
Product	Unit Weight	Container
Hydrogel® N	0.5 lb	1 qt
	2.5 lb	1 gal
	12.5 lb	5 gal
Retarder Solution	2.0 lb	1 qt



Hiram Ball, of Ball Consulting Ltd., demonstrates making a live-body mold using Hydrogel® N. The safe-for-skin-contact alginate yields excellent mold impressions if wax or plaster is cast right after demolding.

Speciality Materials