

Operating Instructions

YETI EXPANSION®

Crown and Bridge Investment Material

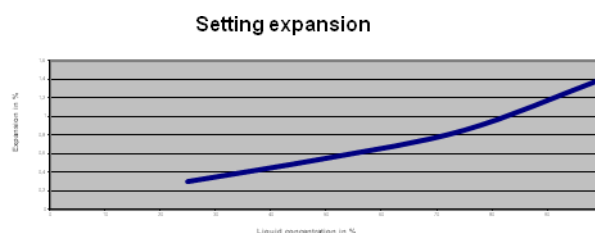
YETI EXPANSION is a phosphate-bound precision investment material for all precious, metal to ceramic and non precious alloy. YETI EXPANSION can be used as Speed investment or the traditional way by using the Preheating progress.

Setting expansion	1,50 %	Flow capability	13cm
Thermal Expansion	1,60 %	Working time (20-22 °Grad)	4-7 min
Total expansion	3,10 %	Pressure	4,2 MPa

Following mixture proportions of powder to water or liquid should be understand as approximate values. They can be strongly influenced by storage conditions, working temperature, mixing units and air moisture.

Physical properties (100% Liquid-Concentration) EN ISO 9694 (1998)

YETI EXPANSION Powder	YETI EXPANSION Liquid/dist. Water
1x 90g	22 ml
2x 90g	44 ml

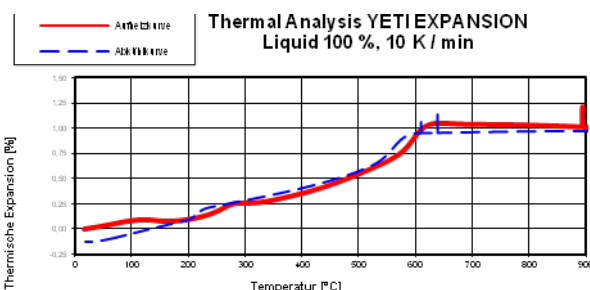


Expansion

YETI EXPANSION Investment will be mixed with the YETI EXPANSION Liquid as mentioned in the below table. The Expansion of the investment can be controlled by the quantity of the distilled water mixed with the EXPANSION liquid. The total liquid quantity (90g-22ml) must not be exceeded. The *Expansion* of YETI EXPANSION is even to the metal contraction according to the below table depending on the type of alloy used by the technician.

Higher is the concentration of the special liquid, higher is the total expansion of the investment.

Type of the Alloy	Mixing Ratio 90 g
Crown and Bridge / Wax	Water/Liquid
Precios metal alloy	16 ml
Concentrate	6 ml
Palladium Based alloys	12 ml
Concentrate	10 ml
Co-Cr alloys	8 ml
Concentrate	14 ml
Ni-Cr alloy	10 ml
Concentrate	12 ml
Inlay and telescope crown	18 ml
Concentrate	4 ml



YETI Expansion is characterized by the maximal possible Expansion and is useable specially for precious alloys.

STORAGE

The storage of the powder and the special liquid must be done at a normal room temperature (21°C). In case the special liquid for investmnet is stored in a temperature below 5 °C, it will be subjected to be frozen and will not be suitable to be used. Storage shelf life YETI EXPANSION Powder and YETI EXPANSION Liquid is 24 Months.

Dokument:	Erstellt am/von:	geändert am/von:	Revision:	freigegeben am/von:	Seitenzahl:
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Packing

Item Nr.: 955-0090	YETI EXPANSION Powder	- 4,5 kg (50x90 g)
Item Nr.: 955-1000	YETI EXPANSION Liquid	- 1000 ml bottle
Item Nr.: 955-0000	YETI EXPANSION Powder + Liquid	- 4,5 kg (50x90 g) + 1000 ml

Operating Instructions

Best and steady results are obtained when storing and working at a constant room temperature of 23°C (min. 19°C).

The mixing should must not be dry and not used for mixing gypsum and plaster based investment. The mixing units might have an influence on the quality and your work, for that reason they must be regularly checked.

Preperation

Debubblizer can be used, (Yeti 142-0000) but it is not obligatory. Be sure that the wax is totally dry before start working.

Flask System

Use a wet flask liner and coat totally the metal casting flasks. Use a double coat liner when using a X9 flask.

Mixing

First fill in the liquid and than the powder and mix by hand with a clean spatula (not a gypsum spatula). Put under vacuum for 60 seconds without using the mixing machine. Than the Investment must be mixed for 60 seconds under the vacuum.

Setting Time

The working time (23 °C) is 6 Minutes since starting the mixing procedure. The setting time must be carried out under small vibration. Stop the filling and the usage of the vibrator when the metal ring is full, and let the casting flask sets for about 20 minutes.

Deflasking

After a setting time of 15 Min. at 23° C and having the flasks cool down deflask prudently.

Preheating temperatures

Adjust your oven at the necessary temperaturure depending on the type of alloy used, and place the flask with the sprue former downwards on the corrugated base plate of the preheating furnace. We suggest to preheat the furnice to 900°C.

Use a sharp knife to scratch the surface of the investment in the upper part of the flask.

700-750°C	for Gold Cast Alloys
800-850°C	for Metal to Ceramic Alloys
900° C	For Non precious Alloys

Rapid Firing

Only flasks with the following sizes X1 - X6 are allowed to a High-Speed Burnout.

According to the alloy type and after the setting time of the investment (20 min.), place the flask directly in the furnace at the final temperature.

Holding time at final temperature X1 for 40 min. X3 for 50 min. X6 for 60 min. X9 for 90 min.

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Preheating methode

Heating process	Heating rate	x 3	x 6	x 9
1. Holding step 250°C	4-6°C/Min.	40 min.	50 min.	60 min
2.- Holding step 570°C	6-7°C/Min.	30 min.	40 min.	50 min.
Final temp. 900°C	8-9°C/Min.	40 min.	50 min.	60 min.

Casting/Cooldown

Upon removal from oven, independent from the way of casting, centrifuge, vacuum pressing, open flame, immediatly cast according to alloy manufacturer's instructions. Place the flask with the sprue former in the upper direction to allow a rapid cool down of the YETI EXPANSION in a room temperature.

Important recommendations

The investment material contains Quartz. Do not BREATH DUST ! May cause delayed lung injury.

The above given instructions correspond to the actual technical status. We assure a very high top quality of our products, any claim must be only made up on the quality of our merchandise.

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