



YEAST

Yeast is a living organism which can be affected by storage practices, dough temperatures, pH, availability of water, and food supply. Of these control points, the most important is temperature. Yeasts are microorganisms that convert sugar into alcohol and carbon dioxide.

Yeast's primary function in a bread dough is to provide leavening. It contributes to flavor and aroma through fermentation. Several forms of yeast are used: **Active dry yeast, Instant yeast, Compressed yeast, or Natural yeast.** The type of yeast used depends on the volume of product.

Home bakers or small retail bakers may use a form of dry yeast since refrigeration is not necessary, and the shelf-life is fairly long.

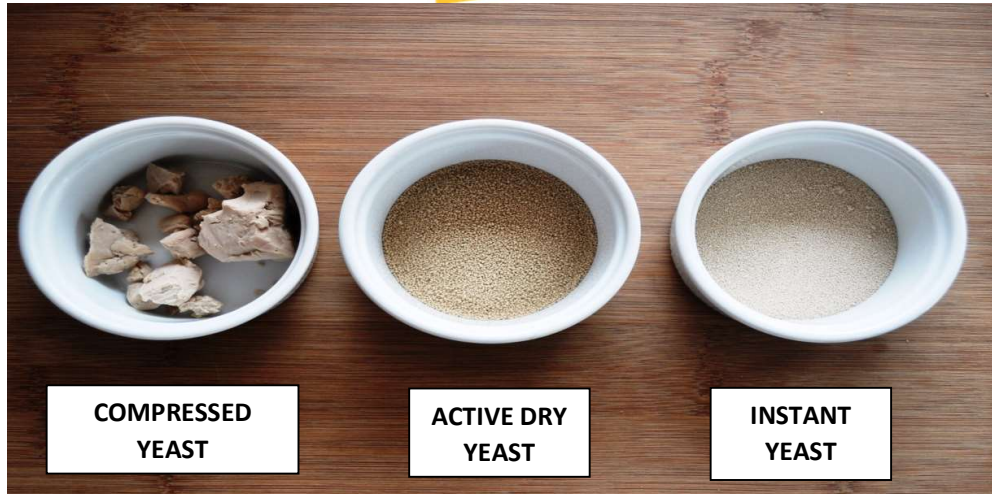
Active dry yeast needs no refrigeration and has 2-12 months storage life, depending on packaging. Active dry yeast must be rehydrated with water at 105-110°F (40-43°C) for about 10-15 minutes before use. As the granule size is big and uneven, this makes it difficult for the yeast to dissolve readily in the liquid or to be added directly to the flour that is why we need to activate it first in warm water before using.

For **Instant yeast**, no refrigeration is required and storage life is one year or more due to packaging in inert gases or under vacuum. Once the package is opened, it is recommended that it be used within three days. Instant yeast is extremely convenient since it does not have to be hydrated prior to use unlike active dry yeast does. It may be added directly with the other dry ingredients and blended, or delayed until no loose water is visible in the dough.

There are 25 Percent more living yeast cells per teaspoon in Instant yeast than in an equal amount of active dry yeast and there are three times more living cells than in an equal amount of fresh compressed yeast,

Compressed yeast is commonly used in retail bake shops as well as in large wholesale bakery production. It can be purchased in many sizes, from 1-pound cakes to 50-pound bags. The general water content of compressed yeast is 70% and is highly perishable outside of refrigerated storage conditions of 36-45°F (2-7°C). Its shelf life ranges from 10 to 15 days at max, which makes it less convenient for home bakers.

Yeast performs other functions in addition to leavening. During fermentation, yeast converts fermentable sugars such as maltose, glucose, fructose, and sucrose into carbon dioxide and alcohol, which generates heat. A baker can judge fermentation by monitoring the increase in temperature. Flavors are generated by the acids that are created during fermentation. Acids also mellow the gluten which can reduce the energy requirements to fully develop a dough.



HOW TO INTERCHANGE DIFFERENT TYPES OF YEAST

If you do not have a particular type of yeast, you can interchange it with a different type of yeast, but in a specific proportion. You can refer to the following table for making the change.

CONDITION	PROPORTION
From Fresh Yeast to Active Dry Yeast	Divide the given quantity by 2
From Fresh Yeast to Instant Yeast	Divide the given quantity by 3
From Active Dry Yeast to Instant Yeast	Multiply the given quantity by 0.8
From Instant Yeast to Active Dry Yeast	Multiply the given quantity by 1.3
From Instant Yeast to Fresh Yeast	Multiply the given quantity by 3
From Active Dry Yeast to Fresh Yeast	Multiply the given quantity by 2