The Gumming Process

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Gumming can be defined as the use of a gum solution, used separately or mixed with other ingredients and applied to a “center” or “starting piece” in a revolving pan during one or more gross-up stages, to achieve certain processing objectives designed to enhance the quality and durability of a panned confection.

The technique of gumming is hundreds of years old. Present-day confectioners continue to rely on the gumming process to deal with a wide range of production challenges, such as control of water activity, control of fat/oil migration, as a bonding agent and to retard sugar crystallization, to name a few.

The application process usually involves hand dosing or metered dosing of the gum solution over various centers, such as nuts, raisins or hard shell confections. Revolving pans of a variety of sizes and shapes are used with a controlled forced air system to dry centers between several wetting or dosing stages.

AVAILABLE GUMS
Several varieties of gum are available to the food and confection industry. Some of the more common gums are guar gum, locust bean gum, agar, gum tragacanth and gum arabic.

By far the most popular gum used in the confection industry is gum arabic. This paper details the many compelling reasons for choosing gum arabic for your gumming process. Examples will be given as to the why and how of the gumming process.

GUM ACACIA/GUM ARABIC
Origin and Background

The gumming process is one of the oldest techniques of processing foods (and other non-food materials) known. It may surprise you to learn of the many applications and uses for gums, specifically gum arabic.

As a natural ingredient gum arabic has few equals in terms of its flexibility, versatility and contribution to the needs of humanity. The confection industry has relied on gum arabic as a critical ingredient in the formulation of common and exotic confections for hundreds of years.

Any discussion of the gumming process must deal with gum arabic as the ingredient of choice.

History tells us that gum acacia (arabic) was used more than 3,000 years ago by the ancient Egyptians and remains to this day as the most versatile and widely used of all gums.

The common street name “gum arabic” is believed to originate from the extensive trading and shipping of gum acacia during the Middle Ages, through Arabian ports to European buyers. Other names such as Turkey gum and Indian gum were used but the name gum arabic survived to become the common name most often used today.

Gum arabic is the natural exudate from the stems and branches of acacia senegal trees. There are many other related varieties of acacia trees but the senegal variety is rec-

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