

Coyote Brand® Tara Gum


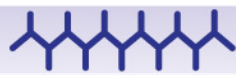






Tara gum is a natural hydrocolloid obtained by a mechanical process from the endosperm of Tara tree seeds. The Tara tree (*Caesalpinia spinosa*, family Leguminosae) is often called the Peruvian Carob bush. It is native to the Peruvian Andes and the harvest of the wild Tara pods is a source of income for many indigenous people and communities in the area.



Tara seed pods

Tara gum is a galactomanan like Guar and Locust Bean gum. Tara gum is a high molecular weight polysaccharide with a ratio of galactose to mannose of 1:3, compared to 1:4 in Locust Bean gum, and 1:2 in Guar gum. This difference provides Tara gum with properties similar to both. Tara gum is cold-water swelling and is pseudoplastic. Its viscosity is similar to Guar gum in cold water. Tara gum fully hydrates after heating, resulting in at least a 20% increase in viscosity when compared to the cold solution. The viscosity of heated Tara gum solutions is greater than Guar and Locust Bean gum solutions under the same conditions.

- Replacement for Locust Bean gum in many applications
- More consistent from batch to batch due to modern, innovative continuous processing methods
- Lowest bacterial load of all Tara gums sold
- Abundant, sustainable supply
- More easily dispersible than other Tara gums

 Fenugreek Gum	1:1	
 Guar Gum	1:2	
 Tara Gum	1:3	
 Locust Bean Gum	1:4	

Galactose to mannose ratios

Coyote Brand® Tara Gum is a superior grade of Tara gum that is manufactured using strict quality controls to assure that the microbiological content of the product is very low and that the particle size distribution is optimal for easy use. Coyote Brand® Tara Gum is a fine, off white to light brown powder. It shows good stability in acidic conditions. It is non-caloric and is composed of 82% dietary fiber (72% soluble fiber and 10% insoluble fiber).

Locust Bean Gum Replacement

Similar to Locust Bean gum, Tara gum solutions are highly viscous with a short texture. Tara gum requires usage levels of 20-25 percent less than Locust Bean gum and resists breakdown during high shear. In comparison to Locust Bean gum, Tara gum provides outstanding heat shock protection and provides a buttery fat-like mouthfeel.



Tara Gum

Tara Gum Applications	Functions	Usage Levels
Fillings, fruit preps, jams & jellies	Suspends fruit, improves mouthfeel, adds texture, reduces syneresis, and improves freeze/thaw stability in frozen products	0.10 - 0.50%
Baked goods	Increases moisture retention, improves sliceability, and adds texture	0.03 - 0.35%
Gluten free breads	Adds texture, increases moisture retention, and provides increased dough viscosity	0.10 - 0.75%
Frozen dough	Controls ice crystal growth and adds texture	0.05 - 0.25%
Ice cream	Controls ice crystal growth, adds texture, improves mouthfeel, and controls meltdown	0.05 - 0.30%
Frozen desserts	Controls ice crystal growth, helps with shape retention, and controls meltdown	0.05 - 0.25%
Cultured dairy products	Improves texture, mouthfeel, sliceability, and reduces syneresis	0.10 - 0.35%
Custards & puddings	Adds mouthfeel, suspension, and reduces syneresis	0.10 - 0.40%
Dips and spreads	Controls syneresis, and improves spoonability and spread	0.10 - 0.50%
Gravies, sauces & dressings	Adds viscosity, suspension, stabilizes emulsions, and improves texture	0.15 - 0.35%
Beverages	Adds viscosity, suspension, and mouthfeel	0.15 - 0.35%
Meat based products*	Improves gel structure, moisture retention, and improves bite and texture. *see USDA guidelines	0.10 - 0.30%

Certificates/Regulatory

Coyote Brand® Tara Gum is Kosher certified. This product is also all natural, GMO free and naturally gluten free. Tara gum is GRAS and it is a suitable additive for food substance in the European Union in accordance with E417. The safety of Tara gum was evaluated by the JECFA (Joint FAO/WHO expert Committee on Food Additives) in 1986 and they concluded that there is no ADI (acceptable daily intake) specified for this product.



Caesalpinhia spinosa flower



Synergies



Coyote Brand® Tara Gum Synergies

Tara gum & Carrageenan

Specific blends of Tara gum and Kappa or Iota Carrageenans increase gel strength and make such gels less prone to syneresis. The synergistic reaction with Carrageenan allows for a reduction of the amount of Carrageenan used in most applications, thus reducing cost.

Tara gum & Konjac

Specific blends of Tara gum and Konjac create solutions with very short and smooth textures, which are heat and pH stable. These blends have the added functional benefit of containing a high content of dietary fiber.

Tara gum & Xanthan gum

Specific blends of Tara gum and Xanthan gum will create elastic gels upon heating and cooling. The final gel strength will depend on the ratios of both gums in the system. These gels can be used at very low concentrations to provide suspension and texture in a wide range of applications.

Tara gum & Starch

Specific blends of gums and starches create complete stabilizing systems that reduce overall hydrocolloid usage levels, help maintain system integrity, prevent starch retrogradation, and create a cleaner flavor release without a filmy mouthfeel. The addition of Tara gum helps make the system more stable, especially in heated applications.

Tara gum & Agar

Specific blends of Tara gum and Agar will create strong gels without syneresis.

Coyote Brand® Stabilizers -Tara-rrific Gum Synergies

Coyote Brand® Stabilizer CT-D100 is an all natural blend of Carrageenan and Tara gum. It provides a creamy and smooth texture to dairy based products. It reacts with the proteins and calcium in the milk to create a soft and elastic gel network. This combination enhances water retention and helps to control ice crystals during freeze/thaw cycles. In cheesecake and cream based fillings, Stabilizer CT-D100 helps create a clean and smooth cut. It also allows the product to stand on its own and maintain its shape and consistency.

Coyote Brand® Tara Gum

- Cost effective
- Synergistic reactions with other hydrocolloids allows for the reduction of the amount used
- Improves freeze/thaw stability
- Reduces syneresis
- Allows for good flavor release
- Stable in high temperature treatments
- Provides short textures
- Provides creamy and smooth texture in dairy applications
- Effective in products containing high concentrations of sugar
- Exhibits excellent filming properties, producing stronger films than Fenugreek and Guar gum





Synergies

Coyote Brand® Stabilizer CT-0109 is a cold soluble synergistic blend of Carrageenan and Tara gum. It provides a silky mouthfeel and helps to stabilize aerated products like mousses. In heated dairy based applications it creates a very soft gel. It is excellent for dips, spreads, dairy based beverages, pastry creams, puddings, and custards.

Coyote Brand® Stabilizer KT-MS is an all natural blend of Konjac and Tara gum that is a versatile low pH stable thickener that provides high viscosity, short texture, and suspension. It provides good flavor release, freeze/thaw stability, and cling, in sauces, glazes, and gravies. It is soluble in cold water and milk, and is heat stable.

Coyote Brand® GumPlete STC-DC-201 is a perfectly balanced stabilizing system comprised of a highly synergistic and specific blend of Modified Starch, Tara Gum, and Carrageenan. It is ideal in puddings and pastry creams. Compared to using only a starch, this GumPlete system provides a smoother, less grainy texture, and helps stabilize proteins. It also allows for a better flavor release, which allows for a lower use of flavorings. The Tara gum in the blend helps prevent starch retrogradation.

Coyote Brand® GumPlete STG-FD-202 is a cost effective blend of Modified starch, Tara and Guar gums. It provides a rich and creamy texture and is especially useful in frozen applications. It helps to control ice crystal growth and melting, in ice cream applications.

Coyote Brand® GumPlete ST-FF-203 stops seepage between fillings and crust. This Modified Starch and Tara gum system binds moisture in fruit fillings, preventing moisture absorption in spongy cakes. It keeps fillings from becoming too molten during heating, preventing the filling from flowing out.



Filling with no gums or starches



*Filling with GumPlete ST-FF-203
(Starch/Tara gum blend)*



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The above information is the result of testing and observations carried out in our laboratories, and we believe it to be accurate. We cannot anticipate the conditions under which this information may be used, and we offer it as a guideline only to assist our customers in the use of our products, and to help them determine the applicability of the products to their formulation(s). It is the responsibility of the customer to determine the usefulness, regulatory status and legality of our products in the customer's application.