

Gluten-Free

Table 10.7 Effect of insoluble fibers on texture of commercial gluten-free mixes.

Commercial Mix	Control	Fiber Effect	Insoluble Fibers Used	BCS Fiber Equivalents
Muffins	Gummy, hard, dry	Fluffy, soft, moist	Long, flexible Mixture of length/softness	30 SL 30 SS
Pancakes	Hard, dense Not cohesive/round shape, mushy, splatter	Fluffy, soft Holds together/round, crisp surface, no splatter	Long, flexible Mixture of length/softness General purpose	30SL/42or43 30SL+ 30
Pizza crust	Doughy, soft	Rigid, crunch	Mixture of length/softness Long, rigid	30SL+ 30FL
Cookies	Spread, dome-shaped (thin at edges), sticks to pan	Maintain spread, gradual tapering, no sticking	Long, rigid Long, rigid, very slightly soft	30FL 30SL+

Insoluble Fiber Functionality

Table 10.8 Using fibers to improve the texture of non-traditional baked goods.

Baked Good	Challenge	Solution	Mechanism	BCS
Bread	Not resilient	Long, flexible insoluble fiber	Strength, flexibility	30SL
Bread	Gummy	Insoluble fiber mixture - long or short/ flexible or rigid	Open up structure	30SL, SL+ XS, SL + 30
Frozen dough	Drying/releasing water/oil	High water absorbing insoluble fiber	Hold water	42 + SL, 42 + SL+
Dough	Stiff dough	Short insoluble fiber	Relaxes dough	30, XS
Fine bakery	Dense	Soft, fluffy, long insoluble fiber	Opening structure, flexibility, strength	SL+
Fine bakery	Powdery	Long flexible insoluble fiber & low viscosity soluble fiber	Provide structure during leavening	42, 42 + SL
Bakery	Dry	High water absorbing insoluble fiber & high viscosity soluble fiber	Hold water and adds slick mouthfeel	42 or 41