

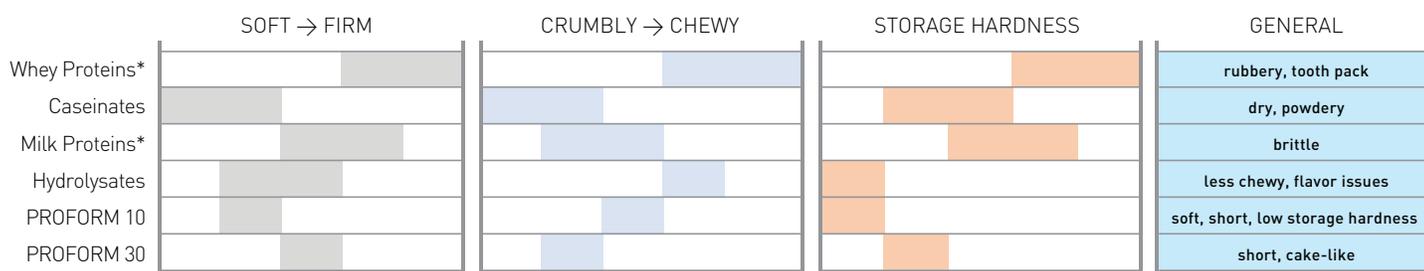
Proform

Texture | Flavor | Nutrition | Value

Protein bars are popular with sports enthusiasts and athletes as well as with a growing number of the general population who include them as important components of a healthy diet and active lifestyle.

Achieving desirable texture in a consistent manner over the shelf life of the bar is a challenge for bar manufacturers. Socius has designed and developed the Proform series of milk protein ingredients to provide nutrition bar manufacturers tools to control and optimize bar texture, mouth feel and nutritional profile in a cost effective manner.

TEXTURE / SENSORY PROFILE CONTRIBUTED TO NUTRITION BARS BY VARIOUS MILK PROTEINS



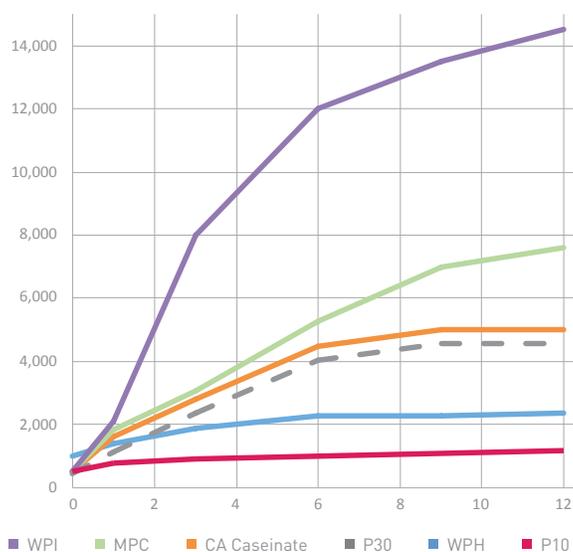
* Concentrates / Isolates

The different protein types contribute different textural attributes to the bar and also vary in the manner in which they impact the development of hardness during the shelf life of the bar.

Proform 10 is designed to minimize hardness development thus extending bar shelf life. It provides a desirable soft and short texture with a very clean milky flavor.

Proform 30 delivers excellent clean flavor notes and contributes a short cake like texture and provides excellent balance when used in conjunction with other proteins.

Bar Peak Force (g) as function of Storage Time (month)



The primary ingredient components of a bar consists of proteins, carbohydrates (syrops & sugar alcohols) and lipids. The relative percentage of each ingredient class can vary depending on final composition requirements (e.g. low fat and/or low carb) but protein contents are typically 20% to 40% of the bar.

Bar Texture is largely dictated by the protein component of the bar. Protein type, concentration as well as powder physical properties are, in turn, the key characteristics that influence texture development in bars.

Milk proteins are well known for their high biological value, excellent flavor profile and functional characteristics. While there can be considerable intra protein variation the texture characteristics contributed by standard milk protein products is well known and summarized in Table 1 and Figure 1.

Socius Technical Center

From concept to prototype to product launch, Socius Technical Center has the resources to help formulate these critical paths to success. Centrally located near O'Hare International Airport in Chicago, the Center is open to help drive your nutritional bar formulations.

