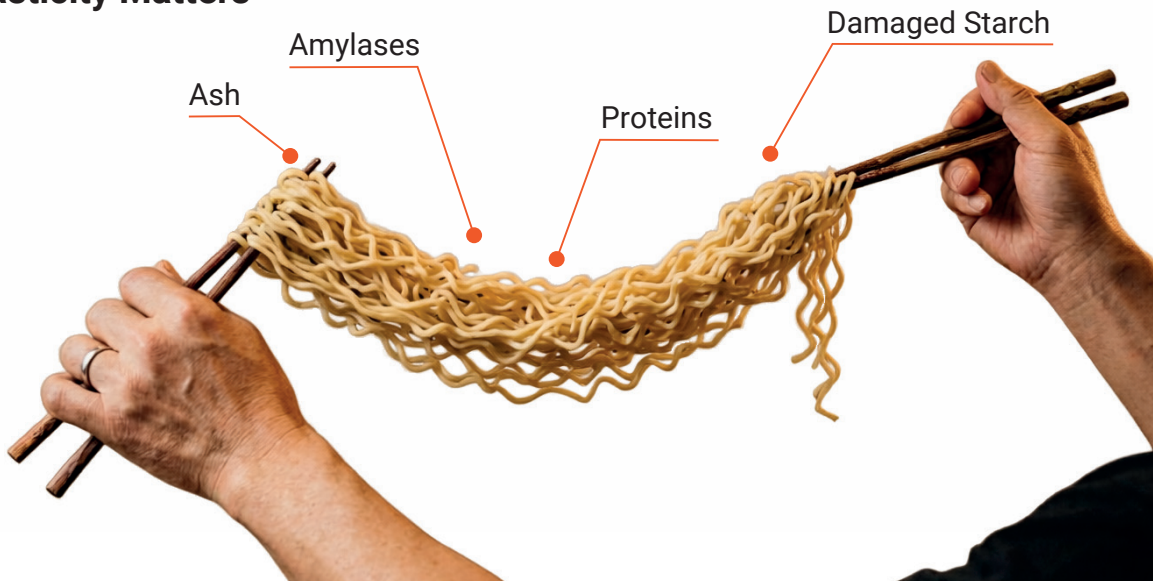


Why Elasticity Matters



- **Texture & Mouthfeel:** Elasticity gives noodles a pleasing chewiness that defines quality, avoiding both a mushy lack of bite and an overly tough or rubbery texture.

- **Durability During Cooking:** Noodles with the right elasticity absorb water while holding their structure, staying firm and intact rather than breaking apart after boiling.

- **Preventing Overcooking or Sogginess:** Elastic noodles resist overcooking, keeping their structure and absorbing water evenly so they do not turn soggy quickly.

- **Handling & Preparation:** Elasticity helps noodles keep their shape during cooking and in sauces without clumping or falling apart, easing stirring, tossing, and serving.

- **Sauce Cling & Dish Integrity:** Elastic noodles contrast with and cling to sauces for flavourful bites, holding their shape in stir-fries or soups so the dish stays balanced and visually appealing.

- **Cooking Uniformity & Consistency:** Elastic noodles cook evenly, so some pieces do not end up overcooked while others remain underdone, giving a consistent texture across the dish.

- **Traditional & Regional Expectations:** Many dishes call for a specific level of elasticity. Ramen, for example, owes part of its authenticity and cultural appeal to its bouncy, chewy texture.

- **Shelf Life & Quality Control:** Elasticity indicates dough quality, which can affect shelf life. In instant noodles, it helps prevent breakage during packaging and cooking, preserving quality over time.

Key Flour Components Affecting Elasticity

Key Flour Components	Contribution to Elasticity	Mechanisms
Proteins	38%	High-gluten flours give more elastic noodles such as ramen and hand-pulled varieties, while low-gluten flours give softer noodles like udon or soba.
Damaged Starch	25%	Moderate damage hydrates gluten and enhances development and elasticity, but excessive damage weakens gluten and makes dough sticky and hard to handle.
Amylase (Enzymatic Activity)	25%	Moderate enzyme activity makes dough more pliable and easier to shape, while excessive activity weakens the gluten network and reduces elasticity.
Ash Content (Minerals)	12%	Higher ash content slightly weakens gluten and reduces elasticity, while lower ash promotes a stronger gluten network that enhances it.

How Flour Components Impact Elasticity of Different Products ?

Elasticity	Starch (Native)	Damaged Starch	Proteins	Amylase (Enzymatic Activity)	Ash Content (Minerals)
Noodles	1	2	3	2	1
3: Strong Impact 2: Average Impact 1: Low Impact					

Explore the Back to Flour Series
Connecting Flour Components With Bakery Product Excellence.
- Click here -

KPM Equipment for Monitoring These Key Flour Components

