



NOODLE

Stronger Chew • Better Elasticity •
Smoother Surface

Performance Phosphate Blends
for Modern Food Manufacturing



Noodle Performance Result

Texture Optimization & Sensory Enhancement



Executive Summary

This trial evaluated Mix Phosphate blends designed to improve the elasticity [chewiness], visual clarity, and cooking yield of white wheat noodles. The objective was to outperform the current market baseline, which suffers from a coarse texture and soft, 'mushy' bite.

Key Finding: The XF-S106 delivered the absolute highest elasticity, creating a premium, firm noodle that resists breaking. Also delivering a smooth, oily surface and significantly better chewiness.



Methodology

Base Formulation: 250g Wheat Flour, 0.75g Mix Phosphate [Test Variable], 3.75g Salt, 95g Water.

Dough Development:

- Powders dissolved in water, then kneaded into flour for 5 minutes.
- Dough covered and kneaded via machine for 10 rounds until visually smooth and non-sticky.
- Critical Step: Resting dough for 30 minutes to allow gluten extension.
- Sheeted from 3mm down to 1mm thickness, then cut into noodles.

Cooking & Shock Process:

- Boiled in high-heat water for 2 min 30 sec.
- Critical Step: Immediately rinsed in ice-cold water [5-10°C] to 'shock' the starch and lock in elasticity.

Efficiency & Profitability Benchmark

[per 250g Flour Dough Batch]

Metric	Market Standard #1	Market Standard #2	XF-S106
Visual Appearance	'Rough and little oil'	'Smooth, oily, and moist lines'	'Smooth, shiny, oily, and moist lines'
Physical Texture	Soft and easy to cut [Coarsest/Mushier]	Chewy and elastic	Highest Elasticity [Difficult to break]
Sensory [Mouthfeel]	Less elastic	Chewiest, Elastic	Chewiest, Most Elastic [Firm bounce]

Head-to-Head Results

Elasticity, Visual Appearance, Chewiness



Market Standard #1
Yields a 'rough' surface and a soft, 'mushy' texture

Lacks the optimized phosphate blend needed to bind tightly with the wheat protein structure. During the high-heat boiling process, the weak dough fails to retain starch and moisture, leading to structural breakdown, flour loss, and a bite that lacks tension.



Market Standard #2
A highly consistent, smooth, and chewy

Engineered to bind tightly with the wheat protein structure, reinforcing the dough against heat-induced loss during boiling. It fully resolves the defects of the standard, creating a distinctly smoother, oily, and moist surface while delivering a reliably elastic bite.



XF-S106
Delivers the absolute highest elasticity and a firm, premium bounce

Formulated to maximize gluten network reinforcement during the resting phase. When paired with ice-water shock (5-10°C), the cross-linked proteins instantly contract, locking in maximum structural tension and chewiness – plus a glossy, artisanal appearance at industrial scale.



Blind Test compare elasticity and chewiness

Commercial Recommendation



Premium "Chewy" Upgrade

Select XF-S106. It is the definitive choice for high-end noodle products where maximum elasticity, 'snap,' and a glossy visual appearance are the primary selling points.



Performance Phosphate Blends for Noodle

Proven upgrades over the current standard – eliminate rough texture and weak elasticity. Choose XF-S106 for a reliable everyday improvement, absolute maximum elasticity and glossy premium appeal.



Product Overview and Key Specifications



XF-S106
PREMIUM

Designed for: Maximum gluten network reinforcement and premium elasticity in wheat noodles.

Best for: High-end noodle lines where 'snap,' chewiness, and a glossy visual appearance are primary selling points.

Key outcomes: Absolute highest elasticity – noodles resist breakage through packaging, transport, and handling. Delivers the smoothest, glossiest surface of all tested variants. Produces a firm 'snap' and the most elastic mouthfeel in blind testing.

Technical Specifications:

Contains E450(iii), E1420, E471.

Application: White wheat noodles / 0.3% of flour weight. Optimized for: 30-minute gluten resting phase + ice-water shock [5-10C] post-boil.

Choose XF-S106 when: your priority is maximum elasticity, a premium firm 'snap,' and the glossiest visual appearance for high-end noodle products.



Surface Quality

Resists boiling loss for a smoother, oilier finish



Maximum Elasticity

Locks in gluten tension for a premium chew.

Need the right blend for your application?
Request a sample, dosage guidance, or trial support
from Additiv Technical Team.



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