

# Starches

## Versatility at nature's best!

We understand that as a nutraceutical manufacturer, you often encounter formulation challenges due to variation in ingredients' properties such as flow, compressibility, and multiple raw material sources. Therefore, you are constantly on the lookout for excipients that can help overcome these challenges during development and aid smooth scale-up during the production process.

DFE Pharma, trusted by formulators for its century long expertise in devising high quality excipient solutions, brings to you a complete portfolio of maize starches with exceptional functionality benefits dedicated for nutraceutical applications.

Starches function as diluents, disintegrants or binders in tablets, as a replacement of gelatin in soft gels, for microencapsulation of vitamins and for volume adjustment in dry-filled capsule formulation. Other applications of starches include oral thin films, coatings, texture modification etc., thus making them one of the most versatile, natural, plant-based excipients.

### Product highlights:

- We offer three grades:
  - Nutroféli™ ST100: Native maize starch for best disintegration
  - Nutroféli™ ST200: Partly pregelatinized maize starch for optimal disintegration and binding
  - Nutroféli™ ST300: Fully gelatinized maize starch for best binding performance
- Conform to both Food and Pharmacopeia monographs to meet nutraceutical regulatory requirements
- Comprehensive formulation and regulatory support from in-house experts

Quality that you can count on  
for your Nutraceutical applications



Non GMO



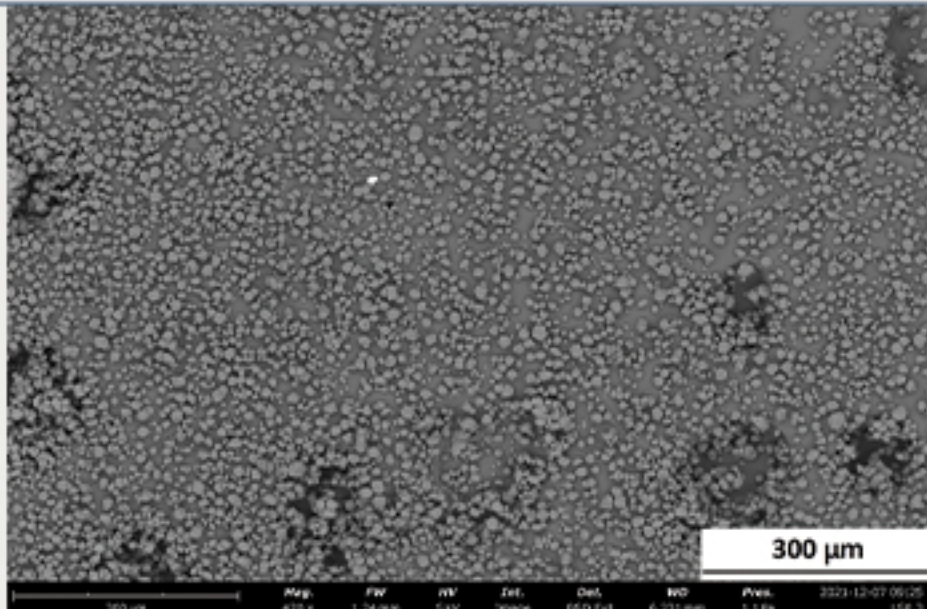
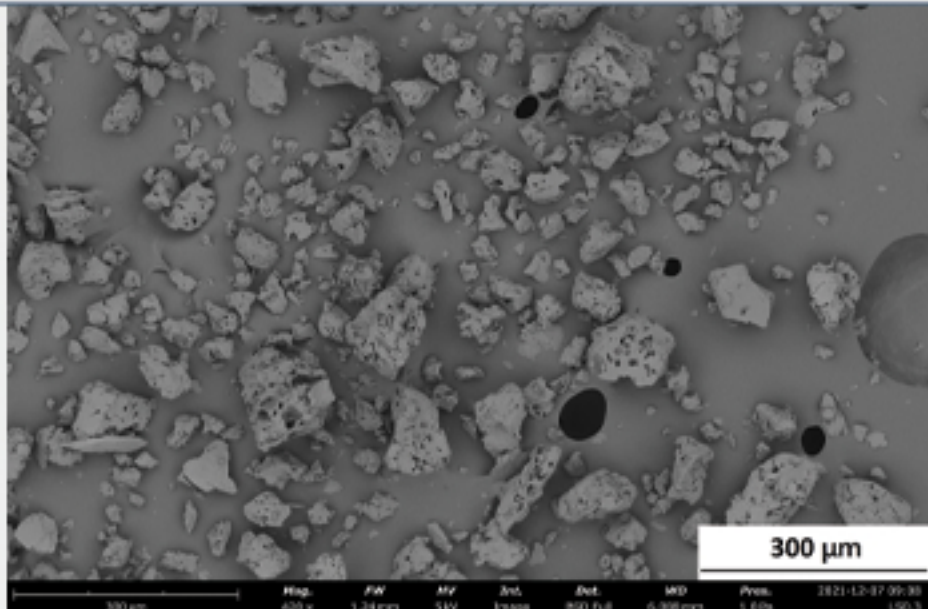
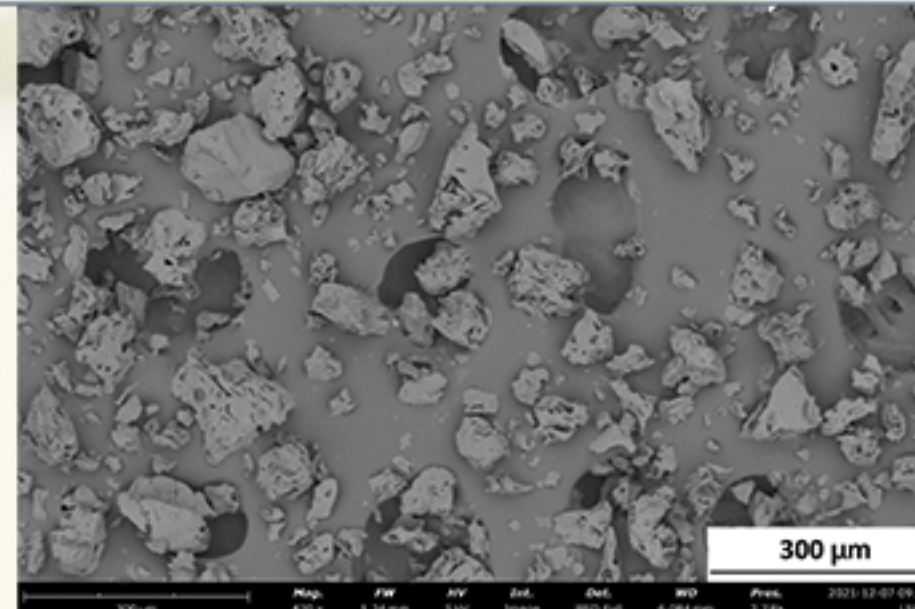









Gluten free



Plant based





	<b>Nutroféli™ ST100</b> Native maize starch		<b>Nutroféli™ ST200</b> Partially pregelatinized starch		<b>Nutroféli™ ST300</b> Fully gelatinized starch	
<b>Product description</b>	Native maize starch that suits the needs of nutraceutical manufacturers who seek simple, natural ingredients in their formulations. Native starches are widely used as disintegrants, fillers and binders in nutraceutical oral solid dose forms.		Partly pregelatinized maize starch that integrates multiple functionality benefits of a binder, disintegrant and flow-aid. This is an ideal excipient for nutraceutical manufacturers who seek optimal excipient solutions with minimal ingredients and high efficiencies.		Fully gelatinized maize starch that helps reducing process complexities and production costs in the development of nutraceutical formulations involving wet granulation. It eliminates the extra step of creating a starch paste, as it can be added directly to the granulation liquid or the dry blend.	
<b>Powder characteristic</b>	White or yellowish-white fine powder; swells in cold water		White or yellowish-white free-flowing powder; swells in cold water		White or yellowish-white free-flowing powder; swells in cold water	
<b>Conforms to</b>	Ph. Eur., USP-NF, JP, FCC Halal, Kosher		Ph. Eur., USP-NF, JPE, FCC Halal, Kosher		Ph. Eur., USP-NF, JPE, FCC Halal, Kosher	
<b>Disintegration properties</b>	+++		++		+	
<b>Binding properties</b>	+		++		+++	
<b>Suitable for</b> (Dosage forms)	  		  		  	
<b>Application Range</b>	Typically used between 5% -25% w/w as disintegrant and as a binder (cooked) in wet granulation		Typically used between 5-75% w/w as diluent and 5-10% w/w as binder/ disintegrant		Typically used between 5-20% w/w as binder in wet granulation	
<b>Typical Data</b>						
Poured Density (g/ml)	>0.45		> 0.50		> 0.50	
Tapped Density (g/ml)	>0.55		> 0.60		> 0.60	
Particle size, X50 (micron)	5-25		60-90		50-90	
<b>Packaging (Bag)</b>						
Capacity	25 kg		20 kg		20 kg	
Composition	Multilayer white paper bag with PE coating		Multilayer white paper bag with PE coating		Multilayer white paper bag with PE coating	
Shelf life	24 months re-test		24 months re-test		24 months re-test	