



OptiBOND™ I 139 modified starch 36364101

OptiBOND™ I 139 modified starch is a high performance cationic papermaking additive designed for use in the wet-end of a virgin or recycle furnish, alkaline board machine system. OptiBOND™ I 139 modified starch provides greater reactivity with microparticle components than conventional wet-end starches, enhancing drainage and retention performance as well as improving strength development. Ultimately, production increases, and/or wet-end additive cost reductions are possible with OptiBOND™ I 139 modified starch use.

Chemical and Physical Properties

	Min.	Max.
Moisture, %	-	15.0
pH (20% w/w slurry)	5.5	7.5

Physical Appearance

	Typical
Color	White
Form	Powder
Bulk Density (lbs./ft ³)	28-34

Chemical Substitution

Functional quaternary amine modification on waxy corn starch.

Preparation

Must be jet-cooked to be effective.

Jet Cooking:

Solids – 4-6% chamber solids, which are then quenched to 1.5% or less

Temperature – 210-235°F

Certification

Kosher pareve

Packaging and Storage

OptiBOND™ I 139 modified starch is packaged in bulk bags and bulk. This product should be stored in a clean, dry area at ambient temperature and away from heavily aromatic material.

Shelf Life

The best before date for OptiBOND™ I 139 modified starch is 5 years from the date of manufacture.

Regulatory Data

Source Waxy Corn

United States

OptiBOND™ I 139 modified starch is approved for use under FDA 21 CFR 178.3520.

Labeling Industrial Starch Modified

Canada

Labeling Industrial Starch Modified

Features and Applications

Ingredion does not recommend emulsifying ASA with OptiBOND™ I 139 modified starch in low shear emulsifiers, due to the enhanced molecular weight properties of this starch product.

Additionally, due to this enhanced molecular weight, adjustments to the starch delivery system may be needed with OptiBOND™ I 139 modified starch use, especially if the current cooked starch is stored above 2% solids.

Recommended addition point solids are 1.0% or less. Addition point strategy depends upon the desired results. Technical Service Representatives are available to assist with product application.

Effective Date: April 22, 2020

Next Review Date: April 22, 2023

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