



PRODUCT DATA SHEET

BLUECRAFT AGRO PRIVATE LIMITED

An ISO 9001:2015 Certified Company

SUPERBOND

Description	Superbond is a modified starch having reactive terminal end group. It is chemically modified following the specific reaction conditions. The structural modification of the starch backbone is done in such a fashion that the modification imparts the property, which improves the ply bond strength and IGT printability of the paperbond during its application.
Properties	In dry form Superbond has the appearance of any standard free flowing fine white powder. It is easily dispersible in cold water and can be sprayed uniformly inside the wet paperboard just before entering into the nip. As a modified starch it has higher viscosity and imparts the rigidity to molecular chains. Superbond has more swelling power causing rapid gelatinisation. This low and rapid gelatinisation temperature on moist paper facilitates rapid fiber-to-fiber bonding by bridging and smooth, homogeneous distribution. This provides the very long lasting strength of board.
Advantages	<p>By the introduction of ionic groups, it is possible to increase the retention of starch up to 98%. This is brought about by additional static fixing of starch on the fiber and increases the effectiveness considerably. Superbond has got advantages over other sprayable starch available due to:</p> <p>a) Lower gelatinization temperature as compared to other sprayable raw starches (more than 70°C) leads to gel formation at a very low temperature and hence better bonding.</p> <p>b) Higher viscosity leads to expansion of hydro-dynamics volume (uniform and wide area exposure in the application. Thus consumption level remains low.</p> <p>c) Synergistic active end groups leads to the effective bonding with the cellulose substrate and hence improvement in the ply bond strength.</p> <p>d) Slightly hydrophobic characteristics leads to the smooth spreading and hence stable mechanical properties and stable strength properties during humid environment.</p>



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Stock Preparation & Properties	<p>It is recommended to make starch suspension in aqueous media by dispersing 10-40 GPL in cold water. Product is easily dispersible due to its free flowing nature without any lump formation. While preparing starch suspension following steps should be followed:</p> <ul style="list-style-type: none">• Starch slurry should be screened before spraying to ensure homogeneous mixture• Suspended starch slurry should be stirred continuously in the stock vessel.• The Starch circulation should be immediately flushed, in case of any stoppage of the machine.
Availability	Superbond is available in 50 kg HMHDPE Bags in inner liner of HMLDPE

SPECIFICATION

Base	Maize/Tapioca Starch
Description	Etherified Starch
Appearance	Free Flow Fine White Powder
Nature	Ionic, Slightly hydrophobic
pH (10% aqueous suspension)	5.0-7.0
Moisture Content (%)	13 max
Residue on 85 mesh (%)	1.0 max
Brook-field Viscosity (cps) (5% Paste at 75°C, 20 rpm)	3000 min