

Suitability & Efficacy Study of POLYMATE -888 as a booster additive for amino resin for manufacturing of wood based panels to improve the quality and reduce the cost.



M/S - PATINA CHEMICALS, KOLKATA



भारतीय प्लायवूड उद्योग अनुसंधान और प्रशिक्षण संस्थान

INDIAN PLYWOOD INDUSTRIES RESEARCH AND TRAINING INSTITUTE

फील्ड स्टेशन, कलकत्ता / FIELD STATION, KOLKATA

(भारत सरकार, पर्यावरण एवं वन मंत्रालय का स्वायत्त निकाय) (Autonomous Body of the Ministry of Environment & Forests, Govt. of India)

2/2, बोरैन राय रोड, वेस्ट, सारसुना, कलकत्ता - 700 061

2/2, Biren Roy Road West, Sarsuna, KOLKATA – 700 061

Ph : 033-24983120 ,Fax :033-24983120,E-mail –ipirtikolkata@ipirti.gov.in

ABSTRACT

The main objective of this study was to manufacturing of UF and MUF resin by using POLYMATE -888 as a booster additive at a concentration of 2.5% of total volume of the resin and its efficacy study for manufacturing of wood based panel products. The study is focused on new solution for production of high quality wood based panels by using pre press grade amino resin by using POLYMATE -888 with liquid urea-formaldehyde resin to make better adhesive system. The study begins with a general introduction followed by five parts reporting the various aspect of the work carried. The third part concerns the study of the method of making adhesive system by manufacturing of liquid urea formaldehyde resin by using resin booster (POLYMATE -888) at 2.5% concentration of the total volume. The process of mixing, cooking parameter and various properties had been studied. In order to improve the adhesive rheological and bonding properties Urea formaldehyde and melamine urea formaldehyde resin was prepared by using 2.5% POLYMATE -888 as a resin booster additive and resin properties was carried. Plywood was manufactured and bond quality was studied as per IS:848:2006. Pre press tackiness of the resin was carried by physical observation during manufacturing. From the study data shows that during study glue shear strength for both Dry ,Weight and Static bending strength values shows satisfactory.Hence the urea formaldehyde resin modified with resin booster (POLYMATE-888) can overcome the short coming of manufacturing of plywood by using pre press technology by using amino resin and improve the qualities of plywood with a reduction of cost .

