

# WOOD SOLUTIONS

*Enhance Your Wood Quality  
with Our Solution*

## PRODUCTS

- Formaldehyde Scavenger
- Hardener
- Industrial Filler
- Wood Putty
- Veneer Tape
- Log Sealant

# FORMALDEHYDE SCAVENGER



## FC-100

- **Over 90% reduction** of formaldehyde emission
- Pre-treatment in glue mixture
- Compatible with a wide range of glue which are UF, MUF and LFE glue



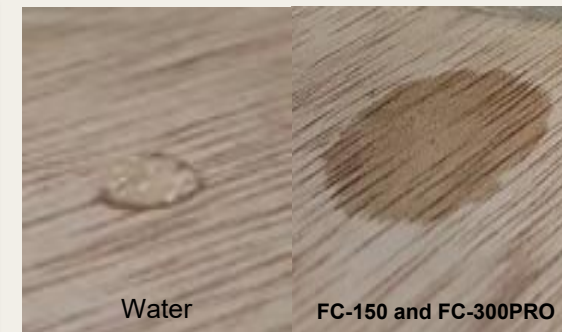
## FC-150

- Upgrade F☆☆☆ → F☆☆☆☆
- Superior wetting property and good in penetration into the wood surface
- Post-treatment on the panel after hot press
- Pre-treatment on the veneer



## FC-300 PRO

- Upgrade F☆☆ → F☆☆☆☆
- Secure in formaldehyde control, especially for floor-based panel and thin panel.
- Superior wetting property and good in penetration into the wood surface
- Post-treatment on the panel after hot press
- Pre-treatment on the veneer



***Your Wood Solution To Meet The International Highest Formaldehyde Control Standard***

JAS F☆☆☆☆

AS/NZS Super EO  
(<0.3mg/L)

US TSCA Title VI / CARB  
ATCM Phase II  
(<0.05ppm, approx. 0.376mg/L)

Taiwan CNS F1  
(0.3mg/L)

Catcher Products	Products Descriptions	Application	Main Benefits
<b>FC-100</b>	<ul style="list-style-type: none"> <li>➤ Formulated with stable and consistent quality to remove formaldehyde in glue effectively.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Post added in glue</li> <li>➤ Spray or roller coating on the products after hot press</li> <li>➤ Dosage: max 18% of resin weight</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stable result even after a long period of time</li> <li>➤ Balance between cost and performance</li> </ul>
<b>FC-150</b>	<ul style="list-style-type: none"> <li>➤ Effective accelerator to remove formaldehyde</li> <li>➤ Superior in wetting property and good in penetration into the treated surface</li> </ul>	<ul style="list-style-type: none"> <li>➤ Spray or roller coating on the product after hot press</li> <li>➤ Spray/coating Volume: 3-6g/ft<sup>2</sup> for both face and back</li> <li>➤ Spray on the green veneer before the dryer</li> </ul>	<ul style="list-style-type: none"> <li>➤ Excellent wetting properties to ensure deep penetration and coating evenness</li> </ul>
<b>FC-300 PRO</b>	<ul style="list-style-type: none"> <li>➤ Excellent accelerator to remove formaldehyde</li> <li>➤ Superior in wetting property and good in penetration into the treated surface</li> </ul>	<ul style="list-style-type: none"> <li>➤ Spray or roller coating on the product after hot press</li> <li>➤ Spray/coating Volume: 3-6g/ft<sup>2</sup> for both face and back</li> </ul>	<ul style="list-style-type: none"> <li>➤ Excellent wetting properties to ensure deep penetration and coating evenness</li> </ul>

## Water vs. FC-300PRO – Penetration into wood



## Hardener H-1

- Used as cross linker in Urea-Formaldehyde (UF) and Melamine -Urea-Formaldehyde (MUF) resin
- Stable and consistency in pot life increment
- Improve in pre-bonding and mechanical properties
- Dosage recommended: 0.5-1.5% of resin
- \* Dosage may vary depending on the glue formulation



## Industrial Flour F-1

- Non wheat based Industrial Flour
- More than 40% cost saving as compared to conventional wheat-based industrial flour

## PF Glue (WBP)

- 50-100% replacement of conventional wheat-based industrial flour in Phenol-Formaldehyde (PF) adhesive
- Pass JAS TS (WBP) Bonding Test

## UF, MUF Glue

- 25-50% replacement of conventional wheat-based industrial flour in Urea Formaldehyde (UF) and Melamine Urea Formaldehyde (MUF) adhesive
- Pass JAS T2 and T1 Bonding Test, no effect on Formaldehyde Emission reading
- As a natural colorant in UF and MUF glue, improve process control at the glue spreader section for easy checking on the unglued area and uneven gluing.

## Material Properties

- Eco-friendly and non-toxic
- 10-15% protein content

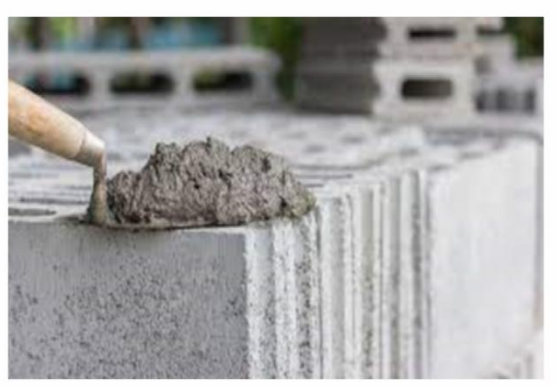


## Industrial Flour F-2

- Thanks to the unique high-temperature resistance properties of the powder, which will improve the glue heat resistance in a high-temperature hot press and enhance the mechanical properties of the glued panel, especially using Phenol-Formaldehyde (PF) adhesive.
- Used in various form of applications for both technical and environmental benefits varying from additive, as well as a composite matrix
- Recommended and commonly used as a compound filler for thermoset moulding powders like bakelite, synthetic resin and glue
- Raw material for mosquito coil, incense stick and briquette



Compound filler in PF glue



Composite matrix in cement



Raw Material in briquette



Raw Material in mosquito coil

Products	Application	Specification	Dosage
<b>Industrial Flour (F-1)</b>	<p>PF Glue</p> <ul style="list-style-type: none"> <li>➤ Recommended for PF glue with 50-100% replacement of flour</li> </ul> <p>UF, MUF Glue</p> <ul style="list-style-type: none"> <li>➤ Recommended for UF and MUF glue with 25-50% replacement of flour</li> </ul>	<ul style="list-style-type: none"> <li>➤ Powder with particle 60 mesh and above</li> <li>➤ Viscosity (3:1): 50-60cps (Brookfield: Spindle 4, 60rpm)</li> <li>➤ pH: 4.0-7.0</li> <li>➤ Moisture %: Max 13</li> </ul>	<p>Recommended Dosage: 25-100% replacement for flour</p> <p>* Dosage may vary depending on the glue formulation</p>
<b>Industrial Flour (F-2)</b>	<ul style="list-style-type: none"> <li>➤ Improve thermal resistance of glue</li> <li>➤ Recommended for phenolic glue</li> </ul>	<ul style="list-style-type: none"> <li>➤ Powder with particle 60 mesh and above</li> <li>➤ Viscosity (2:1): 30-40cps (Brookfield: Spindle 4, 60 rpm)</li> <li>➤ pH: 4.0-7.0</li> <li>➤ Moisture %: Max 13</li> </ul>	<p>Recommended Dosage: 50-100% replacement for flour</p> <p>* Dosage may vary depending on the glue formulation</p>



# WOOD PUTTY



Properties	WP-6	WP-7	WP-8
Stain Resistance	✓		
Water Resistance	✓	✓	
Anti-shrinkage	✓	✓	✓
Crack Resistance	✓	✓	✓



Y7

Color: Natural



Y3

Color: OAK

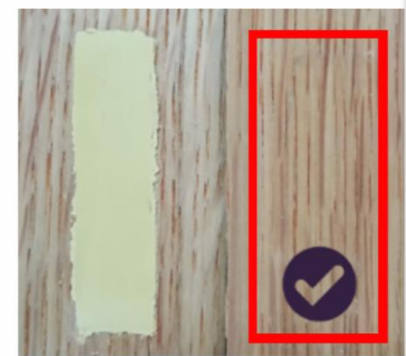


R4

Color: TEAK

WP-6

Market Product



Prevent Putty Stain penetrate through the surface of decorative veneer



Severe Putty Stain observed on the surface of decorative veneer

WP-6, WP-7

Market Product



Water Resistant of after T1, T2 and TS water soaking

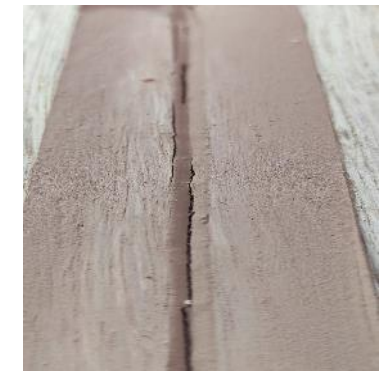
Putty loosed after T1, T2 and TS water soaking

WP-6, WP-7 and WP-8

Market Product



Anti shrink and anti crack



Shrink and crack observed

Products	Product Description	Application	Main Benefits
<b>WP-6</b>	<ul style="list-style-type: none"> <li>➤ Formulated with specialty materials to meet requirements for the wood industry which possesses excellent performance such as stain-resistance, water-resistance, adhesion and etc.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Strongly recommend for plywood, floor-based panel, furniture panel, block board and etc.</li> <li>➤ Stain resistance for plywood/wood panel used in decorative veneer lamination (especially Oak Veneer)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Chemical stain resistant</li> <li>➤ Excellent water resistant</li> <li>➤ Excellent anti shrinkage</li> </ul>
<b>WP-7</b>	<ul style="list-style-type: none"> <li>➤ Formulated to meet general use for wood industry which possess excellent performance such as water resistant, shrinkage, adhesion, hardness and etc.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Recommend for general use in the wood industry, furniture industry, household and etc.</li> <li>➤ Special for the wood panel which require water resistance performance</li> </ul>	<ul style="list-style-type: none"> <li>➤ Excellent in water resistant</li> <li>➤ Excellent in anti shrinkage</li> </ul>
<b>WP-8</b>	<ul style="list-style-type: none"> <li>➤ Formulated to meet economic and general use for wood industry which possess good performance such as shrinkage, adhesion, hardness and etc.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Recommend for general use in wood industry, furniture industry, household and etc.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Anti shrinkage</li> <li>➤ Cost effective</li> </ul>

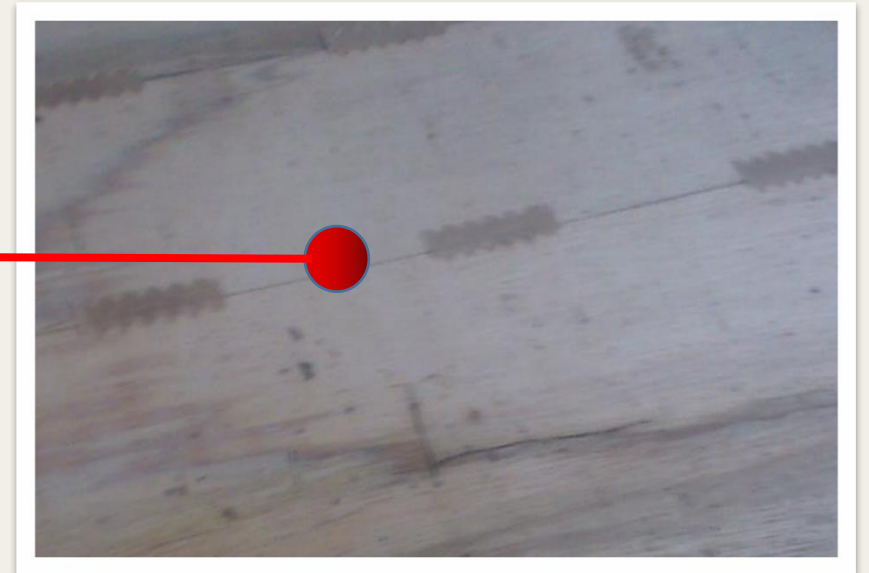
***Our Technical Team Provide Product Development And Solution For All Your Wood Putty Related Problems***

## Tape Edge Composer (TEC) Gummed Tape

- Increase productivity and production recovery compared to conventional hot melt composer
- To join or repair green veneer
- Special heat-activated paper tape to provide a strong join of green veneer before dryer
- Excellent water resistant
- Stay strong even after the drying process therefore can prevent overlap defects on veneer



Tape width: 2" (49mm)



## Log Sealant LS-1

- Non-toxic Elastomeric water-based sealer that protects freshly cut logs and lumber from damaging end splits
- Reduce the water loss from logs to keep the log freshness
- Can be applied to all species of hardwood or softwood
- Prevent blue stain and sap stain caused by damaging fungi
- Coverage: 1 kg of paint are able to cover 1-2 m<sup>2</sup> of surface



**Without Log Sealant**



**With Log Sealant**



**It can be applied on the fresh cut saw timber to prevent further split**

**QUALITY  
ASSURANCE  
&  
TECHNICAL  
SUPPORT**

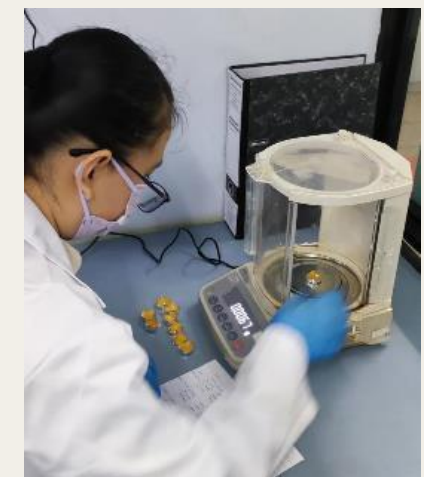
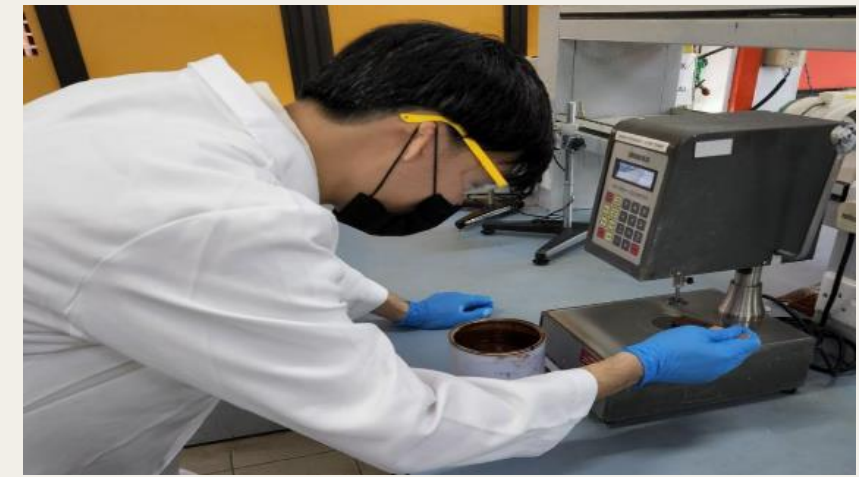


*Our Quality Assurance,  
Your  
Sustainable Value Solutions*

# QUALITY ASSURANCE



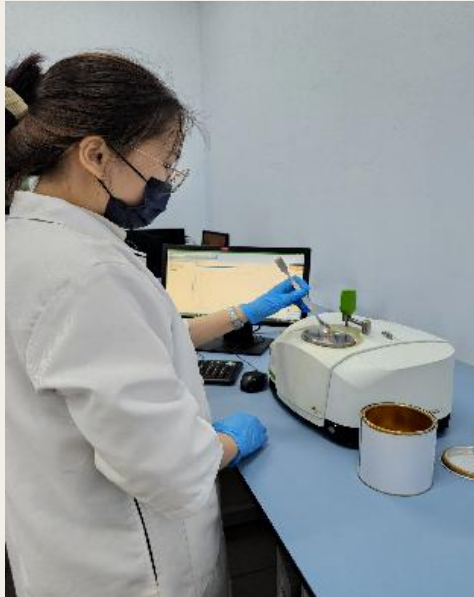
- We believe that quality product is our strategy for success where every batch of raw materials will go through strict quality control checking to ensure our products can meet the quality assurance and customer satisfaction
- Every shipment of our product is accompanied by a COA under our QA department to assure the customers about the proper and consistent quality of the product.



# RESEARCH AND TECHNICAL SUPPORT



➤ Research and product development are our business backbone. Researchers and professionals are doing research and product development every day in our laboratories to ensure that we can provide more and more solutions to our customers and society.





*Your Solutions Partner*