

# International Wood Products Inc.

14 January 2010

Argo Fine Imports 3045 Ridgelake Dr. Suite 316 Metairie, LA 70002

Dear Todd,

Subject: PT. Kayu Lapis Indonesia (KLI) products with F4S Glue

F4S or F 4 Star (known as F\*\*\*\*) is one of the formaldehyde emission standard used for the Japan market and the Japanese standard have been around more than 15 years. During plywood production, LFE glue is spread over the veneers and a chemical agent (known as catcher) is employed over the glued surface. The catcher will absorb majority of the formaldehyde emitted from the glue. The panels, when tested, will be below the CARB phase 2 required emission levels for hardwood plywood.

Best regards.

KUR ANTONO

Asst, Vice-President & Gen, Mgr. International Wood Products, Inc.

(U.S. Representative of PT. Kayu Lapis Indonesia)

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# International Wood Products Inc.

14 January 2010

Argo Fine Imports 3045 Ridgelake Dr. Suite 316 Metairie, LA 70002

Dear Todd,

This is to certify that the plywood production of PT. Kayu Lapis Indonesia (KLI) shipped to Argo Fine Imports are based on BB/CC/OVL grade and these materials comply with the IHPA grading rules.

Best regards,

KUR ANTONO

Asst. Vice-President & Gen. Mgr. International Wood Products, Inc.

(U.S. Representative of PT. Kayu Lapis Indonesia)

### PT. KAYU LAPIS INDONESIA MOROREJO - KALIWUNGU

#### **MATERIAL SAFETY DATA SHEET**

#### I. GENERALS DATA

- Manufacture's name

- Emergency contact no.

- Chemical name

- Trade name

PT. Kayu Lapis Indonesia

62-64-8662980

Urea Formaldehyde Resin

LFE - UL 201

#### II. PHYSICAL DATA

- Appearance

- Specific gravity (30°c)

- Solid content (135°c/1 hour)

- Solubility in water

- Shelf Stability

Milky White

Min. 1.1900 Min. 52%

Moderate solubility

Not less than 20 hrs / 70°c

## III. FIRE AND EXPLOSIVE HAZARD DATA

- Flash point

- Extinguishing media

Not Applicable

Water, Chemical foam, CO2, Dry Chemical

### IV. HEALTH HAZARD DATA

- Threshold limit value

- Emergency and First aid

Didn't have any sinificant acute toxicity

- Eye contact

Flash eyes including under eyelids, with large

quantities of clear water.

- Inhalation

Remove to fresh air.

Skin contact

Flash skin with large quantities of clear water

## **TECHNICAL SPECIFICATION UL - 201**

UL-201 is an aqueous solution of synthetic thermosetting Application

resin adhesive. When mixed with the hardener provides

a glue for interior grade hot pressed plywood.

: Milky White Specifications Appearance

80 - 120 cps Viscosity (30°c) PH value (30°c) : 6.9 - 7.5 Specific Gravity (30°c): min 1.1900

Solid Content : 52 ± 1 %

Hardener UL-201 is WL-C0 it is packed in bags Hardener

(Granular)

Storage UL-201 and hardener WL-C0 should be storage in a

cool dry place. Under these conditions the storage

lives are follows:

UL-201 at (30°c) = 1 month WL-C0 at (30°c) ≈ 2 months

Notice The recommendations given in these notes are based

on result gained from experience and tests.

Recommended a UL-201

: 100% /kg b. Wheat Flour : 18 - 20% /kg Glue Mix

: 5 - 15% /kg c. WL-C0

The viscosity of the glue mix may be adjusted at 15 - 20 poise

Pot Life The pot life of the recommended alue mix in hours

is as follows:

35 deg C 4 hours

Glue spreading value Core (mm) gr/ft² 1.3 24 - 30 30 - 342.0

3.0 Assembly time The recommended assembly time is maximum 4 hour.

But generally, assembly time should be kept as quickly

34 - 40

as possibie.

Cold Pressing Pressure : 9 - 11 kg/cm² Time : 15 - 30 minutes

Pressure : 9 - 11 kg/cm<sup>2</sup> Hot Pressing

Temperature : 110°c - 120°c