

PHENOL FORMALDEHYDE IP-100

1. STANDARD:

UK BS 1455 type WBP

USA C -35-36 Types technical and type I

GERMAN DIN 68705 type AW 100

JAPANESE JPIC types I

2. SPECIFICATIONS:

Appearance		:	reddish brown, viscous liquid
Viscosity,	30°C	:	60 – 250 cPs
Specific gravity	, 30°C	:	1.168 – 1.180 g/cm ³
pH	, 30°C	:	12 ± 1
Gelation time	, 100°C	:	15 – 40 minutes
Water solubility		:	above 20 times
Solid content		:	(44 ± 1) %
Storage life	, 30°C	:	1 month

3. FILLER AND HARDENER:

In preparing the glue mix, IP-100 is blended with IPH-100 and water, IPH-100 is a special mixture of hardener and filler, packaged in 40 kg. besides IPH-300, a small amount of other suitable filler can be added to adjust working viscosity according to factory operating conditions.

4. RECOMMENDED FORMULATION:

A. PF IP-100	:	100	Pbw
B. IPH-100	:	15 – 30	Pbw
C. Water	:	0 – 5	Pbw

5. MIXING PROCEDURE:

First charge (A), then (B). Mix for 5 minutes. Finally charge (C), and stir for 10 – 15 minutes.

6. POT LIFE OF RECOMMENDED GLUE MIX:

Temperature	:	20°C	25°C	30°C	35°C
Pot life (hours)	:	11	9	8	4

7. HOT PRESS TIME:

Temperature : (135 ± 5) °C
pressure : 10 kg/cm²
Time :

Thickness	Time (min – max)
Below 6 mm (3 ply)	45 – 50 sec/mm
9 mm (5 ply)	50 – 55 sec/mm
12 mm (5 ply)	45 – 50 sec/mm
15 mm (7 ply)	50 – 55 sec/mm
28 mm (11 ply)	55 – 65 sec/mm

8. PREPARATION OF VENEER:

- a. Face of veneer must be clean, and free of dust and stains of glue etc.
- b. Moisture contents must be controlled at max 10 % for veneers and cores.

9. GLUE SPREAD:

- a. Single glue line is 160 – 200 g/m² or double glue line 32 – 40 g/SF.
- b. The glue spread is to be adjusted according to thickness. Thick veneer requires higher glue spread due to having rough surface.

10. ASSEMBLY TIME:

Generally, assembly time must be as short as possible, and the glue mix must be still in viscous state when hot pressing is performed. The dry glue mix will decrease panel quality.

11. PRE-PRESSURE:

The normal pressure is 9 – 10 kg/cm². The cold press time about 15 – 20 minutes, adjusted suitable factory working condition.

12. HOT PRESS PRESSURE:

The optimum pressure is 9 – 10 kg/cm². Hot pressure is adjusted according to wood density and factory working condition.

13. CLEANING AND HANDLING:

Mixer and spreading equipments must be cleaned before glue is cured. And this can be easily performed with water. However, when the glue is cured, it can be scratched off.

IP-100 is alkalis/basic in chemical reaction. When surface contact with air, it will form a thin layer.

Skin contact must be washed off with water. IP-100 dilutes easily in water in any portion.