

PARAFORMALDEHYDE PLANT

TYPE OF PLANT: Paraformaldehyde

CAPACITY: 25 MT/D -Min. 80 % grade (typical 84-85%)

TECHNOLOGY: MITSUI-TOATSU (LICENSED)

YEAR BUILT: 2002

RAW MATERIALS:

FORMALIN

Formalehyde	: 37.0 wt.% min.
Methanol	: 4.0 wt.% max.
Formic Acid	: 250 ppm max.
Ash content	: 50 ppm max.



UTILITY CONSUMPTION:

Unit consumption of raw materials and utilities per product paraformaldehyde one ton are as follows :

Formalin (as 37 wt.%)	: 3,130 kg
Electricity (for Process)	: 300 kWh
Steam (2 kg/cm ² G)	: 1,810 kg
Cooling Water (Recycle $\Delta T=4^{\circ}C$)	: 310 tons
Pure Water	: 50 kg
Chemicals	: 0.3 kg

BRIEF PROCESS DESCRIPTION:

(1) PROCESS OUTLINE

Formalin, the raw material, is evaporated under vacuum in a highly efficient evaporator in order to obtain 80% formaldehyde solution, which is then continuously taken out from the evaporator.

The concentrated formalin is next sent to a prilling tower, in which it is rapidly solidified into uniform-size granular paraformaldehyde and drawn out continuous from the bottom of the prilling tower.

(2) GENERAL DESCRIPTION

The paraformaldehyde plant consists of these three sections.

- Concentrating section of formalin.
- Prilling section of 80% paraformaldehyde.
- Recovery section of dilute formalin.

EQUIPMENT LIST:

Prilling Tower, Air Cooler, Absorber, Evaporator, Absorber Cooler, Recovery Tank Condenser
Formalin Tank, Buffer Tank, Hexa. Tank, Water Bath, Head Tank, Washing Tank, Pump
Product Hopper, Cracking Hopper, Cyclone, Cyclone Separator, Vacuum Cyclone, Filter
Belt Conveyor

