



TYPE

Heat curable phenolic resin

FORM OF DELIVERY (f.o.d.)

75 % in butanol (75B)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity (23°C) [mPa.s]	250 - 800	DIN 53177
Iodine Colour Number	≤ 5	DIN 6162
Non-Volatile Matter (1 h; 135 °C; 2; n-butanol) [%]	73 - 77	DIN EN ISO 3251

Not continually determined:

Density (20°C) [g/cm ³]	approx. 1	DIN EN ISO 2811-2
Flash Point [°C]	34	DIN EN ISO 1523

SUGGESTED USES

PHENODUR® PR 411 is meant for the coating of interior and exterior surfaces of packaging containers and cans; as high adhesion, chemically resistant protective coatings for apparatus, vessels, pipelines etc.; for heat curing phenolic/epoxide and phenolic/polyester resin combinations; for heat curing phenolic/polyvinylbutyral combinations and for physically drying paints with resistance to fuel and oil.

PROCESSING

Combinations of PHENODUR® PR 411/75B with epoxide or polyester resins have to be cured for 10 - 20 min at 190 - 210°C to be fully cured. The mixing ratio between PHENODUR® PR 411 and the co-curing resin should be between approx. 15 : 85 and 30 : 70 (calculated as solid resins). After curing, these formulations yield high adhesion, chemically resistant films for the internal and external coating of cans, tubes and other packaging containers.

Furthermore, PHENODUR® PR 411 can be used as a sole binder in high resistant baking enamels. The cured film is comparatively brittle and can only be used on rigid substrates. Polyvinyl butyrals can be applied as plasticizing agents.

STORAGE

At temperatures up to 25°C storage stability packed in original containers amounts to at least 730 days. The expiration date may be extended and COA updated after QC testing of retained samples, only for material in allnex possession.

DISTINGUISHING FEATURES

Films based on PHENODUR® PR 411/75B are almost colourless. The overall properties of PHENODUR® PR 411 resemble those of PHENODUR® PR 401, but PHENODUR® PR 411 displays improved flow properties and a significantly reduced residual monomer content when compared to PHENODUR® PR 401.

SAFETY AND HANDLING

Please consult the Safety Data Sheet (SDS) for safety, health, and environmental data available from allnex.