

## TYPE

Low viscous, non-plastified reactive and relatively flexible phenol-resol, containing very little free monomers

## FORM OF DELIVERY (f.o.d.)

50 % in methoxy propanol (50MP)

## USES

As sole binder or in combination with small amounts of high molecular weight polymers like (poly) vinyl butyral for interior can coating systems (e.g. for 3-piece cans). The resin/coating contains neither Bisphenol A nor the diglycidyl ether of Bisphenol A.

## PRODUCT DATA

### Determined per batch:

|                                                                 |          |                 |
|-----------------------------------------------------------------|----------|-----------------|
| Dynamic Viscosity<br>(23°C)<br>[mPa.s]                          | 50 - 700 | DIN 53177       |
| Non-Volatile Matter<br>(1 h; 135 °C; 2 g; n-<br>butanol)<br>[%] | 49 - 51  | DIN EN ISO 3251 |

### Not continually determined:

|                                           |             |                   |
|-------------------------------------------|-------------|-------------------|
| Density<br>(20°C)<br>[g/cm <sup>3</sup> ] | approx. 1.0 | DIN EN ISO 2811-2 |
| Flash Point<br>[°C]                       | approx. 20  | DIN EN ISO 1523   |

## DILUTABILITY

PHENODUR® VPR 1785 is unlimited dilutable with alcohol's, ketones, glycol ether- and ester, limited soluble in aromatic hydrocarbons and not dilutable with aliphatic hydrocarbons.

## COMPATIBILITY

PHENODUR® VPR 1785 is compatible with high molecular weight polymers like (poly) vinyl butyral and in sensible ratios compatible with high molecular weight epoxide and phenoxy resins.

## PROPERTIES AND USES

PHENODUR® VPR 1785 is designed to be used as main binder in interior can coating systems, e. g. for 3-piece cans. In contrary to other resoles, PHENODUR® VPR 1785 shows a relatively high intrinsic flexibility. The product can be further flexibilized by combining it with high molecular weight epoxide resins or with saturated polyester resins, which may lead to systems which are completely free of Bisphenol A and free of the diglycidyl ether of Bisphenol A. To improve the flexibility of such coatings, relatively small amounts of suitable high molecular weight polymers, like (poly) vinyl butyral (®Butvar) can be used. A ratio of 85 : 15 (PR : PVB) should be sufficient in most cases. The films show good adhesion and flow onto aluminium and tinplate, have a distinctive "golden" colour and are good retort resistance in acidic media (e. g. 2 % lactic acid).

## PROCESSING

PHENODUR® VPR 1785 is admixed with its partner resins at room temperature. The use of an acidic catalyst like ADDITOL® XK 406 (up to 5% calc. on total solids) increases reactivity.

## STOVING CONDITIONS

For the usual very thin films in question for interior can-coating systems, a stoving cycle of 190 - 210°C for 10 - 15 min. is sufficient. Coatings based on PHENODUR® VPR 1785 can also be "shock-cured", e. g. at 230 - 260°C for one minute.

## STORAGE

At temperatures up to 25°C storage stability packed in original containers amounts standard to 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

PHENODUR® VPR 1785 is unique in our range being able to form relatively flexible films without the use of epoxide resins.

## SAFETY AND HANDLING

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