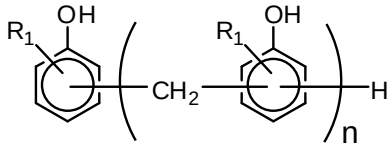
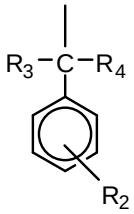
CLAIMS

[Claim 1]

A production method for an aralkyl-modified polyvalent hydroxy resin, the production method comprising subjecting a polyvalent hydroxy compound represented by the following general formula (1):



(1)



(a)

(wherein R_1 and R_2 each represent a hydrogen atom or a hydrocarbon group having 1 to 6 carbon atoms, R_3 and R_4 each represent a hydrogen atom or an alkyl group having 1 to 6 carbon atoms, and n represents a number of from 1 to 5),

to a reaction with an aralkylating agent to substitute a benzene ring in the polyvalent hydroxy compound by an aralkylating agent-derived substituent represented by the formula (a),

using, as the polyvalent hydroxy compound represented by the general formula (1), a narrowly dispersed polyvalent hydroxy compound including, in terms of area% measured by gel permeation chromatography, 2% or less of n=1 component and 70% or more of a total of n=2 and n=3 components and having an Mw/Mn of 1.1 or less.

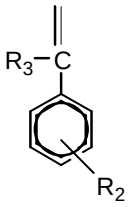
[Claim 2]

A production method for an aralkyl-modified polyvalent hydroxy resin according to claim 1, wherein the aralkylating agent is styrene.

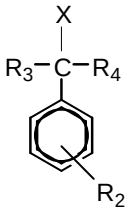
[Claim 3]

A production method for an aralkyl-modified polyvalent hydroxy resin according to claim 1, the production method comprising

using, as an aralkylating agent, an aralkylating agent represented by the following formula (c1) or (c2):



(c1)



(c2)

(wherein R_2 represents a hydrogen atom or a hydrocarbon group having 1 to 6 carbon atoms, R_3 and R_4 each represent a hydrogen atom or an alkyl group having 1 to 6 carbon atoms, X represents a halogen, OH, or OR_5, and R_5 represents an alkyl group having 1 to 6 carbon atoms),

being reacted in a presence of from 10 to 1,000 ppm of an acid catalyst at a reaction temperature of from 40 to 120°C.

[Claim 4]

A production method for an aralkyl-modified polyvalent hydroxy resin according to any one of claims 1 to 3, wherein the reaction comprises subjecting from 0.1 to 1.5 mol of the aralkylating agent to a reaction with 1 mol of a hydroxy group in the polyvalent hydroxy compound.

[Claim 5]

A production method for an epoxy resin, the production method comprising obtaining an aralkyl-modified polyvalent hydroxy resin by the production method for an aralkyl-modified polyvalent hydroxy resin according to any one of claims 1 to 6, and subjecting the aralkyl-modified polyvalent hydroxy resin to a reaction with epichlorohydrin to convert a hydroxy group in the aralkyl-modified

polyvalent hydroxy resin into a glycidyl ether group.

[Claim 6]

A production method for an epoxy resin composition, comprising an epoxy resin and a curing agent, the production method comprising obtaining an aralkyl-modified polyvalent hydroxy resin by the production method for an aralkyl-modified polyvalent hydroxy resin according to any one of claims 1 to 6, and blending, as a part or whole of the curing agent, the aralkyl-modified polyvalent hydroxy resin as an essential component.

[Claim 7]

A production method for an epoxy resin cured product, comprising obtaining an epoxy resin composition by the production method for an epoxy resin composition according to claim 6, and curing the epoxy resin composition.

[Claim 8]

A production method for an epoxy resin composition, comprising an epoxy resin and a curing agent, the production method comprising obtaining an epoxy resin by the production method for an epoxy resin according to claim 5, and blending the epoxy resin as an essential component.

[Claim 9]

A production method for an epoxy resin cured product, the production method comprising obtaining an epoxy resin composition by the production method for an epoxy resin composition according to claim 8, and curing the epoxy resin composition.