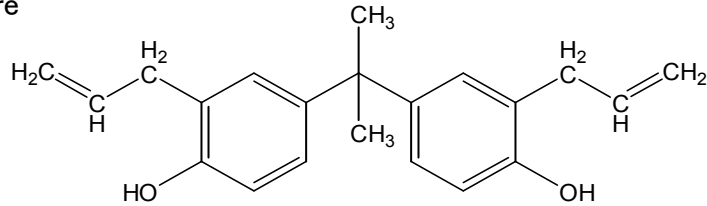


Product Specification

Product Name **DABPA**
Chemical Name **2,2'-diallylbisphenol A**
Chemical Structure



CAS No **1745-89-7**

Properties

ITEM	Specification
Apperance	Clear liquid
Purity	MIN 90%
Gardner	MAX 3
Viscosity	15,000~25,000 cps/25°C

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2. PROPERTIES OF BMI-2300/DABPA RESIN * 1

Product Name	DABPA	
Mol ratios(BMI-2300/DABPA)	1.2/1	
Gel Time(Seconds) 170°C	392	
200°C	161	
precurring condition	150°C(4hr)	
curing condition	175°C(1.5hrs)+200°C(1.5hrs)+230°C(4hrs)	
Resin density	1.22	
Mechanical Properties		
Flexural Strength(MPa)		
Room Temp.	204.4	
200°C	116.6	
Flexural Modulus(GPa)		
Room Temp.	4.44	
200°C	3.21	
Charpy Impact Strength(kJ/m ²)		
Notched	3.3	
	31.2	
Barcol Hardness	58.6	
Termal Properties		
Glass Transition Temp (°C)	DMA	287.0
	TMA	248.5
Coeffeicient of Liner Expansion(× 10 ⁻⁵ /°C)		
40~Tg	4.6	
Tg~(Tg+20)	27.1	
Temperature of 5% Weight Loss(Td ₅)		
from rt	408.2	
from 300°C	424.8	
Electrical Properties		
Dielectric Constant		
1G Hz	3.10	
3G Hz	3.09	
5G Hz	3.01	
Dielectric Loss Tangent		
1G Hz	0.012	
3G Hz	0.013	
5G Hz	0.014	

* 1 Method of molding : casting

All the figures above are representative ones of each product, and not the guaranteed ones.

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3. PROPERTIES OF BMI-1100/DABPA RESIN * 1

Product Name	DABPA	
Mol ratios(BMI-1100/DABPA)	1.2/1	
Gel Time(Seconds) 170°C	820	
200°C	261	
pre curing condition	150°C(2hr)	
curing condition	175°C(1.5hrs)+200°C(1.5hrs)+230°C(4hrs)	
Resin density	1.22	
Mechanical Properties		
Flexural Strength(MPa)		
Room Temp.	138.6	
200°C	99.6	
Flexural Modulus(GPa)		
Room Temp.	4.40	
200°C	3.07	
Charpy Impact Strength(kJ/m ²)		
Notched	4.3	
	14.4	
Barcol Hardness	57.8	
Thermal Properties		
Glass Transition Temp (°C)	DMA	278.6
	TMA	237.1
Coefficient of Linear Expansion(×10 ⁻⁵ /°C)		
40~T _g	5.8	
T _g ~(T _g +20)	27.9	
Temperature of 5% Weight Loss(T _{d5})		
from rt	417.3	
from 300°C	427.8	
Electrical Properties		
Dielectric Constant		
1G Hz	3.06	
3G Hz	3.05	
5G Hz	3.03	
Dielectric Loss Tangent		
1G Hz	0.013	
3G Hz	0.014	
5G Hz	0.015	

* 1 Method of molding : casting

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4.PROPERTIES OF BMI-2300/DABPA RESIN(cf DDM*²)

BISMALEIMIDE		BMI-2300	
Mol ratios(BMI/DABPA)		1.2/1(DABPA)* ¹	2/1(DDM)
Gel Time(seconds)	170°C	392	292
	200°C	161	94
pre curing condition		150°C(4hrs)	150°C(1.5hrs)
curing condition		175°C(1.5hrs)+200°C(1.5hrs)+230°C(4hrs)	
Resin density		1.22	—
Mechanical Properties			
Flexural Strength (MPa)	Room Temp.	204.4	125.0
	200°C	116.6	101.8
Flexural Modulus (GPa)	Room Temp.	4.44	4.10
	200°C	3.21	3.10
Charpy Impact Strength (kJ/m ²)	Notched	3.3	1.3
		31.2	21.9
Barcol Hardness		58.6	50
Thermal Properties			
Grass Transition Temp.(°C)	By DMA	287.0	302.5
	By TMA	248.5	264.0
	Coeffeicient of Liner Expansion(×10 ⁻⁵ /°C)		
	40~T _g	4.6	5.4
	T _g ~300°C	27.1	15.0
Temperature of 5% Weight Loss (Td5)	from Room Temp.	408.2	394.0
	from 300°C	424.8	401.0
Water Absorption (%)		—	—
Electrical Properties			
Dielectric Constant	1G Hz	3.10	3.07
	3G Hz	3.09	3.04
	5G Hz	3.01	3.01
Dielectric Loss Tangent	1G Hz	0.012	0.013
	3G Hz	0.013	0.014
	5G Hz	0.014	0.015

* 1) Method of molding : casting

* 2) Diaminodiphenylmethane

All the figures above are representative ones of each product, and not the guaranteed ones.

note: BMI-2300/DABPA=1/1 add DCP 1phr

pre cure 120°C 2hrs post cure 175°C 1.5hrs + 200°C 4hrs

T_g 378°C(by DMA) 365°C(by TMA)

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5.PROPERTIES OF BMI-1100/DABPA RESIN(cf DDM*²)

BISMALEIMIDE		BMI-1100	
Mol ratios (BMI/DABPA)		1.2/1(DABPA)* ¹	2/1(DDM)
Gel Time (seconds)	170°C	820	304
	200°C	261	136
pre curing condition		150°C (2hrs)	150°C (1.5hrs)
curing condition		175°C (1.5hrs)+200°C(1.5hrs)+230°C(4hrs)	
Resin density		—	1.27
Mechanical Properties			
Flexural Strength (MPa)	Room Temp.	138.6	140.5
	200°C	99.6	107.4
Flexural Modulus (GPa)	Room Temp.	4.4	3.80
	200°C	3.07	2.90
Charpy Impact Strength (kJ/m ²)	Notched	4.3	1.4
		14.4	24.3
Barcol Hardness		57.8	50.0
Thermal Properties			
Grass Transition Temp.(°C)	By DMA	278.6	280.0
		237.1	257.0
	By TMA		
Coeffeicient of Liner Expansion(× 10 ⁻⁵ /°C)	40~T _g	5.8	8.4
	T _g ~300°C	27.9	34.1
Temperature of 5% Weight Loss (Td5)	from Room Temp.	417.3	393.0
	from 300°C	427.8	397.0
Water Absorption (%)		—	—
Electrical Properties			
Dielectric Constant	1G Hz	3.06	3.29
	3G Hz	3.05	3.25
	5G Hz	3.03	3.16
Dielectric Loss Tangent	1G Hz	0.013	0.012
	3G Hz	0.014	0.013
	5G Hz	0.015	0.015

* 1) Method of molding : casting

* 2) Diaminodiphenylmethane

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