

Dielectric Properties

The following tables list the dielectric property values measured by various independent institutes.

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ROHACELL® IG and ROHACELL® A

Dielectric properties of ROHACELL® IG and ROHACELL® A

Properties	Unit	ROHACELL® 31 IG/ A	ROHACELL® 51 IG/A	ROHACELL® 71 IG/A	ROHACELL® 110 IG/A
ϵ' (f = 10 GHz)		1.05	1.071	1.09	1.12
$\tan \delta$ (f = 10 GHz)		0.0017	0.0031	0.0034	0.0046

Source: Institut für Hochfrequenztechnik, Technische Universität Darmstadt, July 2004

The data of this table are representative values, but not to be used to establish specifications

Dielectric properties of ROHACELL® IG and ROHACELL® A

Properties	Unit	ROHACELL® 31 IG/ A	ROHACELL® 51 IG/A	ROHACELL® 71 IG/A	ROHACELL® 110 IG/A
ϵ' (f = 2.5 GHz)		1.05	1.05	1.08	TBD
$\tan \delta$ (f = 2.5 GHz)		0.0003	0.0003	0.0003	TBD
ϵ' (f = 5 GHz)		1.06	1.07	1.1	TBD
$\tan \delta$ (f = 5 GHz)		0.0011	0.0006	0.0011	TBD
ϵ' (f = 10 GHz)		1.06	1.07	1.08	TBD
$\tan \delta$ (f = 10 GHz)		0.0039	0.0021	0.0035	TBD
ϵ' (f = 26.5 GHz)		1.05	1.07	1.08	TBD
$\tan \delta$ (f = 26.5 GHz)		0.0034	0.0037	0.0044	TBD

Source: Seavey Engineering Ass., Report 8867-700

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ROHACELL® HF

Dielectric properties of ROHACELL® HF

Properties	Unit	ROHACELL® 31 HF	ROHACELL® 51 HF	ROHACELL® 71 HF
ϵ' (f = 10 GHz)		1.04	1.08	1.10
$\tan \delta$ (f = 10 GHz)		0.0017	0.0021	0.0026

Source: Institut für Hochfrequenztechnik, Technische Universität Darmstadt, July 2004

The data of this table are representative values, but not to be used to establish specifications

Dielectric properties of ROHACELL® HF

Properties	Unit	ROHACELL® 31 HF	ROHACELL® 51 HF	ROHACELL® 71 HF
ϵ' (f = 2.5 GHz)		1.05	1.06	1.07
$\tan \delta$ (f = 2.5 GHz)		<0.0002	<0.0002	<0.0002
ϵ' (f = 5 GHz)		1.04	1.06	1.106
$\tan \delta$ (f = 5 GHz)		0.0016	0.0008	0.0016
ϵ' (f = 10 GHz)		1.04	1.07	1.09
$\tan \delta$ (f = 10 GHz)		0.0017	0.0041	0.0038
ϵ' (f = 26.5 GHz)		1.04	1.05	1.09
$\tan \delta$ (f = 26.5 GHz)		0.0106	0.0135	0.0155

Source: Seavey Engineering Ass., Report 8867-700

The data of this table are representative values, but not to be used to establish specifications

ROHACELL® WF

Dielectric properties of ROHACELL® WF

Properties	Unit	ROHACELL® 51 WF	ROHACELL® 71 WF	ROHACELL® 110 WF
ϵ' (f = 10 GHz)		1.07	1.10	1.16
$\tan \delta$ (f = 10 GHz)		0.0035	0.0041	0.0055

Source: Institut für Hochfrequenztechnik, Technische Universität Darmstadt, July 2004

The data of this table are representative values, but not to be used to establish specifications

Dielectric properties of ROHACELL® WF

Properties	Unit	ROHACELL® 51 WF	ROHACELL® 71 WF	ROHACELL® 110 WF
ϵ' (f = 2.5 GHz)		1.06	1.07	1.09
$\tan \delta$ (f = 2.5 GHz)		0.0003	0.0003	0.003
ϵ' (f = 5 GHz)		1.08	1.10	1.19
$\tan \delta$ (f = 5 GHz)		0.0008	0.0012	0.0014
ϵ' (f = 10 GHz)		1.08	1.11	1.16
$\tan \delta$ (f = 10 GHz)		0.0038	0.0044	0.0056
ϵ' (f = 26.5 GHz)		1.07	1.08	1.12
$\tan \delta$ (f = 26.5 GHz)		0.0045	0.0047	0.0059

Source: Seavey Engineering Ass., Report 8867-700

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® = registered trademark

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