

DIELECTRIC PROPERTIES

FOR IG, HF AND WF GRADES

All the tables shown below represent the dielectrics properties for the IG, HF and WF grades of ROHACELL®. This were measured by different institutes. For further information please contact us.

DIELECTRIC PROPERTIES OF IG

PROPERTIES	ROHACELL 31 IG	ROHACELL 51 IG	ROHACELL 71 IG	ROHACELL 110 IG
ϵ' (f = 10 GHz)	1.05	1.071	1.09	1.12
$\tan \delta$ (f = 10 GHz)	1.05	1.071	1.09	1.12

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.

PROPERTIES	ROHACELL 31 IG	ROHACELL 51 IG	ROHACELL 71 IG	ROHACELL 110 IG
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
The data of this table are representative values, but not to be used to establish specifications.

DIELECTRIC PROPERTIES OF HF

PROPERTIES	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.

ROHACELL FOAM TECHNICAL PRODUCT MANUAL

PROPERTIES	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.

DIELECTRIC PROPERTIES OF WF

PROPERTIES	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.

PROPERTIES	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

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