

Product Information

# Dielectric Properties

The following tables list dielectric property values measured by various independent institutes. For more information, please speak with a ROHACELL® representative.

## Dielectric properties of ROHACELL® A, HF and WF

Properties	31 A	51 A	71 A	110 A	31 HF	51 HF	71 HF	51 WF	71 WF	110 WF
$\epsilon'$ (f = 10 GHz)	1.05	1.071	1.09	1.12	1.04	1.08	1.10	1.07	1.10	1.16
$\tan \delta$ (f = 10 GHz)	0.0017	0.0031	0.0034	0.0046	0.0017	0.0021	0.0026	0.0035	0.0041	0.0055

Source: Institut für Hochfrequenztechnik, Technische Universität Darmstadt, July 2004  
The data in this table are representative values, but not to be used to establish specifications.

## Dielectric properties of ROHACELL® A, HF and WF

Properties	31 A	51 A	71 A	110 A	31 HF	51 HF	71 HF	51 WF	71 WF	110 WF
$\epsilon'$ (f = 2.5 GHz)	1.05	1.05	1.08	TBD	1.05	1.06	1.07	1.06	1.07	1.09
$\tan \delta$ (f = 2.5 GHz)	0.0003	0.0003	0.0003	TBD	<0.0002	<0.0002	<0.0002	0.0003	0.0003	0.003
$\epsilon'$ (f = 5 GHz)	1.06	1.06	1.1	TBD	1.04	1.06	1.106	1.08	1.10	1.19
$\tan \delta$ (f = 5 GHz)	0.0011	0.0006	0.0011	TBD	0.0016	0.0008	0.0016	0.0008	0.0012	0.0014
$\epsilon'$ (f = 10 GHz)	1.06	1.07	1.08	TBD	1.04	1.07	1.09	1.08	1.11	1.16
$\tan \delta$ (f = 10 GHz)	0.0039	0.0021	0.0035	TBD	0.0017	0.0041	0.0038	0.0038	0.0044	0.0056
$\epsilon'$ (f = 26.5 GHz)	1.05	1.07	1.08	TBD	1.04	1.05	1.09	1.07	1.08	1.12
$\tan \delta$ (f = 26.5 GHz)	0.0034	0.0037	0.0044	TBD	0.0106	0.0135	1.0155	0.0045	0.0047	0.0059

Source: Seavey Engineering Assoc., Report 8867-700  
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**Evonik Resource Efficiency GmbH**

High Performance Polymers  
Performance Foams  
64293 Darmstadt, Germany  
Phone +49 6151 18-1005

**Evonik Foams Inc.**  
Theodore, Alabama USA  
Phone +1 866 764-6235

**Evonik Specialty Chemicals (Shanghai) Co., Ltd.**  
Shanghai, China  
Phone +86 21 6119 1544