

## Akulon® F223-D

## PA6

Low/Medium Viscosity

Print Date: 2016-11-08

Properties	Typical Data	Unit	Test Method
<b>Rheological properties</b>			
	<i>dry / cond</i>		
Molding shrinkage (parallel)	1.1/*	%	ISO 294-4
Molding shrinkage (normal)	1.1/*	%	ISO 294-4
<b>Mechanical properties</b>			
	<i>dry / cond</i>		
Tensile modulus	3200/1000	MPa	ISO 527-1/-2
Nominal strain at break	20/>50	%	ISO 527-1/-2
Yield stress	85/45	MPa	ISO 527-1/-2
Yield strain	4/25	%	ISO 527-1/-2
Flexural modulus	2600/-	MPa	ISO 178
Flexural strength	100/-	MPa	ISO 178
Charpy impact strength (+23°C)	N/N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	N/N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	8/35	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	5/5	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal properties</b>			
	<i>dry / cond</i>		
Melting temperature (10°C/min)	220/*	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	60/*	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	160/*	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.9/*	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1/*	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-2/*	class	IEC 60695-11-10

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information. Typical values are indicative only and are not to be construed as being binding specifications.



Properties	Typical Data	Unit	Test Method
Thickness tested	1.5/*	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-2/*	class	IEC 60695-11-10
Thickness tested	0.75/*	mm	IEC 60695-11-10
Oxygen index	26/*	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	800/-	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	1.5/-	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775/-	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	1.5/-	mm	IEC 60695-2-13
<b>Electrical properties</b>	<b>dry / cond</b>		
Relative permittivity (100Hz)	3.4/15	-	IEC 60250
Relative permittivity (1 MHz)	3.1/4.7	-	IEC 60250
Dissipation factor (100 Hz)	65/3900	E-4	IEC 60250
Dissipation factor (1 MHz)	165/1300	E-4	IEC 60250
Volume resistivity	1E13/1E10	Ohm*m	IEC 60093
Surface resistivity	*/1E14	Ohm	IEC 60093
Electric strength	30/20	kV/mm	IEC 60243-1
Comparative tracking index	*/600	V	IEC 60112
<b>Other properties</b>	<b>dry / cond</b>		
Water absorption	10/*	%	Sim. to ISO 62
Humidity absorption	2.8/*	%	Sim. to ISO 62
Density	1130/-	kg/m <sup>3</sup>	ISO 1183
<b>Material specific properties</b>	<b>dry / cond</b>		
Viscosity number	129/*	cm <sup>3</sup> /g	ISO 307, 1157, 1628

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information. Typical values are indicative only and are not to be construed as being binding specifications.