## **HF Series**

## NovoVellum® HFT01

The proven solution for improved moisture and electrical resistance compared to conventional EVA encapsulants.

Featuring a unique patented formulation, *NovoVellum*® HFT01 is a transparent encapsulant with excellent barrier properties to provide worry-free protection to your modules. Insensitive to extreme PID stress.

Property features	Test method	Unit	
Thickness sheet		μm	200 – 1100
Width sheet		mm	Up to 1450
Core inside diameter		mm	76 or 152
Surface finish			Matt, rough or polished
Packaging			Aluminium bag
Interleaving foil			20µm LDPE, optional
Uncured properties	Test method	Unit	(caliper 460 μm)
OPTICAL PROPERTIES			
Integrated transmission 400 – 800 nm	In house method	%	88
Maximum transmission	In house method	%	89
UV cut-off	In house method	nm	360
MECHANICAL PROPERTIES			
Modulus	ISO 527-3	MPa	50
Nominal strain at break	ISO 527-3	%	> 350
Tensile stress at break	ISO 527-3	MPa	5
Hardness Shore A	DIN 53 505	-	65
Shrinkage	On glass		
130°C		%	0.5
140°C		%	1.5
150°C		%	2.5
OTHER PROPERTIES			
Normalized water vapor transmission rate	ASTM F1249	g.mm/(m²day)	< 1.5
Density		g/cm³	0.95
Cured properties	Test method	Unit	
ELECTRICAL PROPERTIES			
Dielectric strength	ASTM D149-09 meth A		
Dielectric strength		MV/m	> 40
Breakdown voltage		kV	> 15
DC resistance of insulating materials	ASTM 257-07		
Volume resistance		Ω	> 4 x 10 <sup>12</sup>
Volume resistivity		Ω cm	> 1 x 10 <sup>15</sup>
OTHER PROPERTIES			
Adhesion to glass		N/cm	> 40 *

<sup>\*</sup> Value function of cure conditions.

