

## ISONOM<sup>®</sup> NKN 2039

Description:

ISONOM<sup>®</sup> NKN 2039 consists of Polyimide film, (e.g. Kapton<sup>1</sup>) covered on both sides with uncalendered Nomex<sup>1</sup>.

Properties:

ISONOM<sup>®</sup> NKN 2039 is a combined flexible material of thermal classification 180° C (H) with good mechanical properties like high tensile strength and high tear resistance combined with high electrical strength.

ISONOM<sup>®</sup> NKN 2039 is highly flexible and has an absorbent surface.

Application:

ISONOM<sup>®</sup> NKN 2039 is mainly used as a slot liner, slot closure and phase insulation in thermal high stressed electrical motors. ISONOM<sup>®</sup> NKN 2039 is also used as interlayer insulation in transformers and other electrical machines and appliances.

Formats:

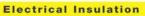
- Sheets: untrimmed width 965mm, length on request.
- Rolls: untrimmed max. width 965 mm
- Tapes: from 10 mm width upwards

Storability:

ISONOM<sup>®</sup> NKN 2039 can be stored unlimited under normal conditions (20°C, 50% r. h.).

All information given here is based on currently available facts on the results of experiments performed with all due care in our laboratories. It does not in any way reduce the responsibility of the user for carrying out further tests in order to ensure successful processing and use in specific applications. ISOVOLTA AG A-2355 Wiener Neudorf Phone: +43/5/9595-0 Fax: +43/5/9595-9499 electrical-insulation@isovolta.com www.isovolta.com

<sup>&</sup>lt;sup>1</sup> KAPTON and NOMEX are registered trademarks of DU PONT





## **Technical Data**

ISONOM <sup>®</sup> NKN 2039									
Properties	Test method	Unit Value		Value	Value				
Nominal thickness		mm	0.25	0.27	0.30				
Tolerance	IEC 626	mm	± 0.02	± 0.03	± 0.03				
Total substance	IEC 626	g/m²	147	183	220				
Nomex 411	IEC 626	μm	130	130	130				
Polyimide film	IEC 626	μm	25	50	75				
Nomex 411	IEC 626	μm	130	130	130				
Breakdown voltage	IEC 626	kV	≥ 5	≥ 9	≥ 12				
Breakdown voltage after folding	IEC 626	kV	≥ 5	≥ 9	≥ 12				
Tensile strength MD and TD	IEC 626	N/cm	≥ 35						
Elongation MD and TD	IEC 626	%	≥3						
Thermal classification	IEC 216 UL 1446	°C	180 200						

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A Constantia INDUSTRIES AG COMPANY



## ISONOM® NMN 2035

Description:

ISONOM® NMN 13 2035 consists of PET-film, covered on both sides with uncalandered Nomex

**Properties:** 

ISONOM® NMN 2035 is a combined flexible material of thermal classification 155° C (F) with excellent mechanical properties like high tensile strength and high edge tear resistance combined with high electrical strength.

ISONOM® NMN 2035 is highly flexible and has an absorbent surface.

Applications:

ISONOM® NMN 13 2035 is mainly used as a slot liner, slot closure and phase insulation in the production of low voltage motors.

Besides this ISONOM® NMN 13 2035 is used as interlayer insulation in transformers and other electrical machines and appliances.

Materials:

ISONOM® NMN 13 2035 consists of PET-film, covered on both sides with uncalandered Nomex.

Formats:

Sheets: on request Rolls: untrimmed approx. 965 mm wide. Tapes: from 10 mm width upwards

Storability:

ISONOM® NMN 13 2035 can be stored unlimited under normal conditions (20°C, 50% r. h.).

Additional Information:

Additional Technical Data are avaiable in the Productdata Pdf



## **Technical Data**

Туре				ISONOM <sup>®</sup> NMN 13 2035				
Properties		Test method	Unit	Value	Value	Value	Value	
Nominal thickness			mm	0,25	0,28	0,30	0,45	
Tolerance		IEC 626	mm	± 0,04	± 0,03	± 0,03	± 0,04	
Total substance		IEC 626	g/m²	162	197	232	442	
Nomex uncalandered	1		my	130	130	130	130	
PET-film			my	50	75	100	250	
Nomex uncalandered	1		my	130	130	130	130	
Breakdown voltage		IEC 626	kV	≥ 6	≥ 11	≥ 10	≥ 23	
Breakdown voltage after folding		IEC 626	kV	≥6	≥ 10	≥9	≥ 18	
Tensile strength	longitudinal transversal	IEC 626	N/10mm N/10mm	≥ 75 ≥ 75	≥ 200 ≥ 170	≥ 120 ≥ 120	≥ 340 ≥ 300	
Elongation	longitudinal transversal	IEC 626	% %	≥ 10 ≥ 10	≥ 20 ≥ 20	≥ 10 ≥ 10	≥ 20 ≥ 20	
Thermal classification	ı	IEC 216/	JL1446	155/180°C	155/180°C	155/180°C	155/180°C	