

# *Technical Data*

## **UBE NYLON**

### ***1026B3X1***

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## Technical information

UBE NYLON 1026B3X1 is a general type of polyamide 6 grade with relatively high viscosity which is suitable for film application. It could help to provide the well-balanced performance in process ability and film property.

UBE NYLON 1026B3X1 has been developed as subsequent grade of UBE NYLON 1026B3.

### 1. Basic properties

Table 1 Basic properties of UBE NYLON 1026B3X1

UBE NYLON 1026B3X1		Test method	Typical value
Melting point	(deg-C)	ISO 11357	220
Viscosity Number *	ml/g	ISO 307	217
Relative Viscosity **	( - )	UBE method	3.63

\* 96% H<sub>2</sub>SO<sub>4</sub> : Polymer Conc. 0.5%

\*\* 96% H<sub>2</sub>SO<sub>4</sub> : Polymer Conc. 1.0%

### 2. Flow properties

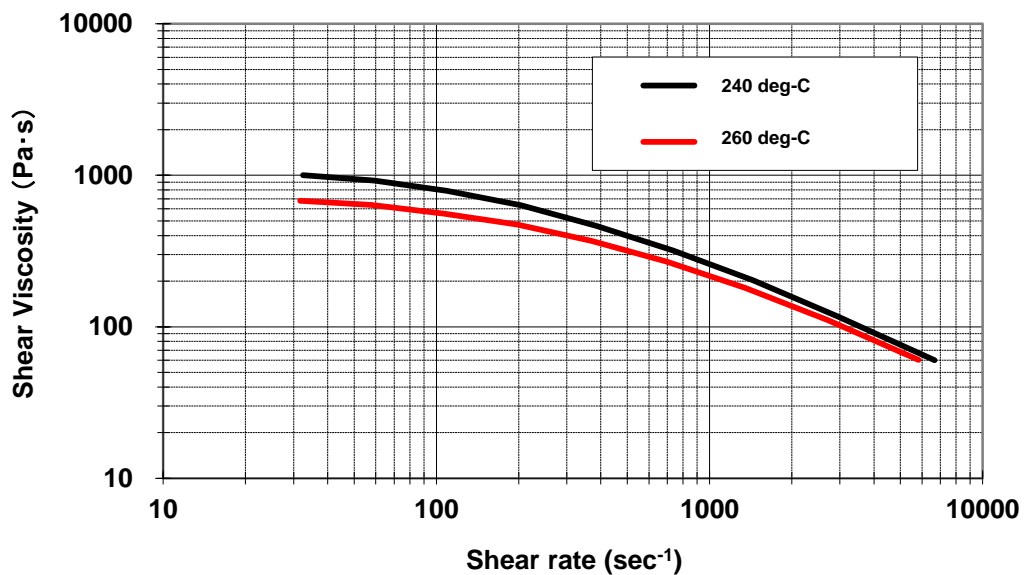


Fig.1 Flow property of UBE NYLON 1026B3X1

## Technical information

### 3. Film properties (T-die cast process)

#### 3-1 Properties of mono-layer cast film

Table 2 Typical processing condition of T-die cast film (mono-layer)

Extruder		Screw size $\phi$ 25mm L/D = 25 , C.R. = 3.6
Die width	(mm)	350
Lip clearance	(mm)	0.8
Chill roll temp.	(deg-C)	30
Extrusion Temperature  (deg-C)	C1	190
	C2	210
	C3	230
	C4	250
	AD	250
	D	250

Table 3 Physical properties of T-Die cast un-oriented film  
(50 $\mu$ m, mono-layer, 23deg-C, 50%RH)

Item	Unit	Method	UBE NYLON 1026B3X1
Tensile strength at break	MPa	ASTM D-882	100
Tensile elongation at break	%	ASTM D-882	450
Tensile modulus	MPa	ASTM D-882	800
Haze	%	ASTM D-1003	< 0.5
Gloss	%	ASTM D-523	155

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### 4. Film properties (Air cooled blown)

#### 4-1 Properties of multi-layer blown film

Table 4 Typical processing condition of Air cooled 3-layers blown film

Extruder		Screw size φ40mm 3-layers air-blown		
Layer structure		PA (outer) / Tie / LDPE (inner)		
Thickness	(μm)	30 / 5 / 65		
Die diameter	(mm)	90		
Lip clearance	(mm)	0.8		
Blow-up ratio	( - )	2.0		
Extrusion Temperature  (deg-C)		Outer	Middle	Inner
	C1	220	170	160
	C2	230	190	180
	C3	250	190	190
	AD	250	200	190
	D	250	250	250

Table 5 Physical properties of Air cooled 3-layer blown un-oriented film  
(100μm, 3-layers, 23deg-C, 50% RH)

Item	Unit	Method	UBE NYLON 1026B3X1
Tensile strength at break	MPa	ASTM D-882	28
Tensile elongation at break	%	ASTM D-882	350
Tensile modulus	MPa	ASTM D-882	310
Haze	%	ASTM D-1003	23
Gloss	%	ASTM D-523	75

\*The contents of here written materials were prepared based on materials, information and data available at the present moment. They may be revised because of new knowledge, information and data without notification. \*The data described herein are averaged values obtained by specified measurement: they are not guaranteed figures.

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