

**TORAYFAN™ NO**

Non-oriented polypropylene film

TECHNICAL DATA

(The below are representative/measured values and not guaranteed values.)

Features

Non-oriented polypropylene (CPP) film for packaging and sealant applications.

- Suitable for the inner surface of retort pouches.
- Suitable for retort processing at up to 135°C (excluding 3951), excellent for food hygiene.
- Select from a wide variety of types according to your needs, with ZK207, which offers excellent overall balance, ZK500, ZK100 and more.

General Properties				TORAYFAN™ NO				
Item	Reference Standards	Unit	ZK207	ZK500	ZK99S	ZK100	3951	
Features			Good Bag-Break Strength	Excellent Bag-Break Strength	Heat Sealability Strength	High Transparency	Semi-Retort	
Heat Resistance			Up to 135° C				Up to 120° C	
Heat Sealability Strength			High	Medium	High	Medium	High	
Bag Break Strength			High	Very high	Medium	Medium	Low	
Transparency			Medium	Medium	Medium	High	High	
Fold Whitening			Medium	High	Medium	High	High	
Orange-Peel Texture			Medium	High	Medium	High	High	
FDA 21CFR 177.1520			Compliant				—	
EU directive 10/2011/EC			Compliant				—	
Thickness Range		Micron	50 – 100				30 – 100	
Corona-Treated Surface			Inside					
Relative Density			0.9					
Thickness		Micron	70				60	
Tensile Strength	MD	JIS K7127	MPa	50	52	48	51	48
	TD			40	40	38	37	35
Tensile Elongation	MD	JIS K7127	%	750	760	740	760	700
	TD			900	880	810	860	830
Young's Modulus	MD	JIS K7127	MPa	630	480	600	670	500
	TD			520	350	530	570	460
Haze		JIS K7361	%	44	51	57	12	6
Friction Coefficient (EC/n-EC)	Static	JIS K7125		0.9	1.1	1.1	0.8	0.2
	Kinetic			0.8	1.0	0.9	0.8	0.2
Surface Roughness	EC surface		Micron	0.18	0.24	0.20	0.15	0.20
	Non-EC surface			0.18	0.24	0.20	0.15	0.20
Blocking Shear Force (n-EC/n-EC)	80° C		N/12cm <sup>2</sup>	10	20	13	20	—
Wetting Tension	EC surface	JIS K6768	mN/m	40	40	40	40	40
Heat Sealability Strength	Initial MD		N/15mm	73	66	76	71	81
	Initial TD			71	70	71	66	78
	Post-retort MD			67	64	77	62	80
	Post-retort TD			67	65	69	60	74

※Heat Sealability Strength Retort condition : 130°C(266F) × 30min