



BOLPHANE R³

**RENEW
REDUCE
RECYCLE**

BRN

Ultrathin display shrinkfilm on the basis of bi-oriented polyethylene (BO-PE) soft shrink

- Controlled shrinkage
- Excellent machinability on high speed equipment

BRN is especially designed for soft and flexible items usually seen in stationery, textile and paper products.

In high speed processing conditions, **BRN** reveals itself in terms of high output performances on applications that require low shrink.

Compared to a typical shrinkfilm, BRN keeps shrink forces under control within a large temperature range.



Disposal

Options for disposal are **recycling** (compatible with SPI code 4/PE-LD), incineration with energy recovery and landfill. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial and local regulations.



Food contact

Complies with EU and US regulations on food contact materials. See the « Declaration of Conformity » of concerned film reference for details.

Film storage

The maximum temperature for storage is 32° C, with a maximum of 80% RH, up to one year.

BRN Technical Specifications

Technical properties	Test unit	Test Method	Values	
Reference			BRN15	
Presentation				
Grade			15	
Roll Length- Singlewound (S)	m		2 670	
Roll Length- Centerfolded (C)	m		1 335	
Width - singlewound (S)	mm	mini : 150 - maxi : 1 400 - increment : 5		
Width - centerfolded (C)	mm	mini : 150 - maxi : 850 - increment : 50		
Friction coefficients (film to film)				
Static		ASTM D1894	0.20	
Dynamic		ASTM D1894	0.14	
Optical properties				
Haze	%	ASTM D1003-A	3.5	
Gloss at 20°		ASTM D2457	98	
Shrinkage properties			LD*	TD*
Free shrink at 93°	%	ASTM D2732	25	30
Free shrink at 120°	%	ASTM D2732	60	60
Shrink force	kg/cm²	NFT 54-125	10	10
Mechanical properties			LD*	TD*
Stiffness modulus	Mpa	ASTM D882	210	230
Elongation at break	%	ASTM D882	110	100
Tensile strength	Kg/cm²	ASTM D882	470	430
Barrier properties				
Water vapor transmission rate	g/m²/24h 38°C, 95% HR	ASTM E96	65	
Oxygen transmission rate	cm³/m²/24h 23°C, 0% HR	ASTM D3985	17 500	

* LD = Longitudinal Direction
* TD = Transversal Direction

Characteristics are those of a non-perforated film



The technical features of the products defined herein are given as typical values. They are the best information available to us and we believe them to be reliable. Users have to check-up that they are suitable with all the applications as performance may vary with processing conditions. Unless previous warning, BOLLORÉ has the right to change at any time the definition and technical features of its products.