



# TECHNICAL SPECIFICATION

## AKYBOARD® D4 4 mm 1500 g/m<sup>2</sup>

► **Description : bubble structure polypropylene copolymer extruded**

Product	Treatment *	Thickness (mm)	Weight g/sqm	Density (g/cm <sup>3</sup> )	Colour
<b>Akyboard®</b>	<b>Corona</b>	<b>4 ± 0.2</b>	<b>1500 ± 150</b>		<b>Grey 707</b>

\*others on request

Description	Diameter (mm)	Colour
<b>Bubbles</b>	<b>4</b>	<b>Black</b>

► **Item**

	Dimension (mm)	Tolerance
Width with scraps	550 to 2100	+/- 2 mm
without scraps		
Length	500 to 4000	
Squareness	3 mm/m (front and back)	

► **Logistic details**

Nr of pieces/pallet	Depending on the format of the sheets
Dimension of pallet	Depending on the dimension of the sheets
Protection	Wood pallet + PC bottom and cover + PP corners + PE stretch foil + strapping
Storage	Inside, dry place, 1 pallet on 1 maxi

► **Treatment**

	Method	Unit	Value	Result
Corona	Sherman pens	mN/m	≥ 42	
Anti-static	On request			
Fire retardant	On request			
UV treatment	Test in progress			

► **Printing**

	2 sides	1 side
Silkscreen UV	X	X
Digital UV	X	X

In order to protect better the printing results, we recommend applying an additional varnish over the inks.

► **Converting**

- Gluing (hot melt: PP or polyurethane reactive)
- Welding
- Screwing
- Riveting
- Cutting (guillotine, die cut, laser, knife, plotter)

► **Regulations**

- Conformity with: Heavy metal (RoHS, 94/62/EC); REACH / SVHC; ELV (n°2000/53/CE)
- Food contact: please consult us

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► **Mechanical properties of the raw material\***

Property	Method	Unit	Result
Tensile Strength at Yield	ISO 527-2	M Pa	25
Elongation at Yield	ISO 527-2	%	7
Flexural modulus	ISO 178	MPa	1100
Izod Impact Strength			
At 23°C	ISO 180	KJ /m <sup>2</sup>	18
At -20°C			5.5
Melt Flow Index 230°C/2.16kg	ISO 1133	g/10min	3.5

► **Mechanical and thermal properties of final product**

Property	Method	Unit	Result
Flexural break resistance (Distance between fulcrums: 100 mm, test speed 300 mm/min, sample: 40x200 mm)	ISO 178	N	_____
Flexural rigidity (Distance between fulcrums: 100 mm, test speed 5 mm/min, sample: 40x200 mm)	ISO 178	N/mm	_____
Flexural break resistance (Distance between fulcrums: 100 mm, test speed 300 mm/min, sample: 40x200 mm)	ISO 178	N	_____
Hardness	ISO 868	Shore D	_____
Dimensional variation 22H, 70°C	Internal	%	_____
Impact resistance at 23 °C (steel ball 500 g, falling height: 250 mm)	Internal		_____
Impact resistance at -30°C (Steel ball 500g, falling height : 250 mm)	Internal		_____
Flame propagation speed	FMVSS 302	mm/min	_____
Smell (sample 2 hours at 70°C in oven)	Internal	No persistent odour	
Volatile Organic Components	Not detectable at room temperature		

► **Thermal properties of the raw material\***

Property	Method	Unit	Result
Melting point	ISO 3146	°C	165
Heat Deflection Temperature			
1.80 MPa – 120°C per hour	ISO 75-2	°C	50
0.45 MPa - 120°C per hour			92
Flash point		°C	350
Auto ignition temperature		°C	> 380
Thermal expansion coefficient		mm/m°C	0.11

\*Extracted from the polypropylene Heterophasic Copolymer raw material data sheet

► **Chemical resistance**

Polypropylene has good chemical inertness and good resistance to cracking under stress. It has no solvent at 20°C. Very resistant to mineral and organic products; it is neither affected by water solutions of mineral salts, nor by chemical bases and mineral acids at temperatures lower than 60°C, except very strong acids. Not resistant to substances with an oxidizing effect or to certain solvents. Details can be supplied on request.

► **Environment**

Polypropylene is persistent in the environment and is not biodegradable.

► **Recycling properties**

Hereby, we confirm that our products are based on polypropylene copolymer and are 100% recyclable by following methods:

► **Mechanical recycling**

Mechanical recycling must be the preferred way.

Polypropylene can easily be recycled for extrusion purpose for example.

Our own wastes of production are crushed in order to be re-injected in our extrusion machines.

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our products wastes have to be separated from other wastes in order to improve the recycling.  
We have the possibility to collect the wastes from our customers. Please contact us for more information.

▶ **Thermal recycling or incineration**

Our products can be recycled by thermal recycling process.  
The heat produced can then be used as substitutes for oil, gas and coal or to generate energy at power plants.  
The calorific gain from polypropylene in an energy recovery process is 24 MJ/kg

▶ **Complementary information:**

- Dispose of in accordance with relevant local regulations. Do not discharge the product into the environment.
- Recycling identification code: 5 
- Our products are not suitable for composting

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