

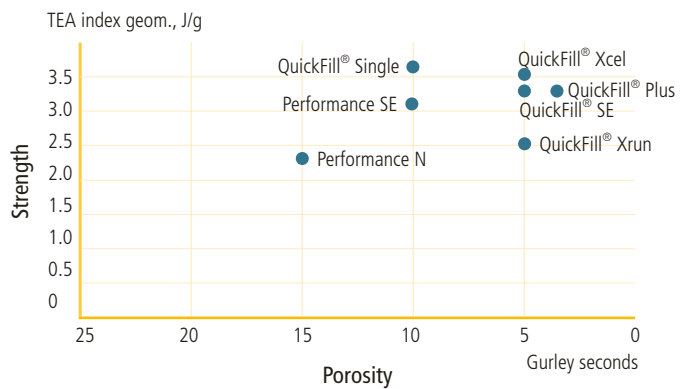


BILLERUD SACK **KRAFT** PAPER RANGE

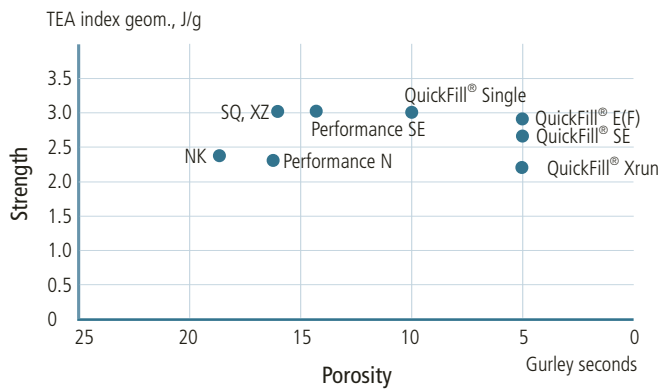
Billerud's comprehensive selection of sack kraft papers has been specially designed to fulfil the requirements of a multitude of industries, materials, filling machines, climatic conditions and market exposure.

All our brown grades offer excellent strength properties, and the top-of-the-line QuickFill® grades also feature exceptional porosity for quick filling of powdered goods.

Brown grades

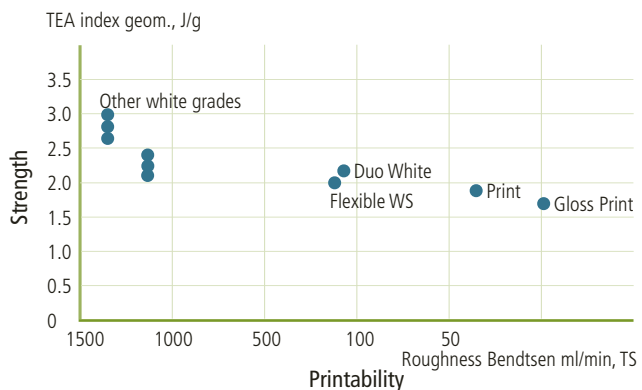


White grades



Our complete range of white sack kraft paper offer all the necessary characteristics for efficient filling of both open mouth and valve sacks. The white grades match the brown for strength and porosity, which is perfect for sacks with a white outer layer.

White grades



Thanks to high surface smoothness, our calendered and coated products offer exceptional printability.

Sack paper for valve sacks, characteristics

White grades	Stretch MD	TEA index geom.	Tear index geom.	Printability	Runability at converting	Porosity	Perforation of sacks
White QuickFill® Xrun	••	•••	••••	••	•••••	••••	No
White QuickFill® SE	••••	••••	•••••	••	••••	••••	No
White QuickFill® E(F)	•••••	••••	•••••	••	•••	••••	No
White QuickFill® Single	•••••+	••••	•••••	••	•••••+	••••	No
White Performance SE	••••	••••	••••	••	••••	••	Yes
White SQ	••••	••••	••••	••	••••	••	Yes
White XZ	••••	••••	••••	••	••••	••	Yes
Brown grades							
Brown QuickFill® Xrun	••	•••	••••	•	•••••	••••	No
Brown QuickFill® SE	••••	•••••	••••	•	••••	••••	No
Brown QuickFill® Plus	••••	•••••	••••	•	••••	•••••	No
Brown QuickFill® Xcel	•••••	•••••+	••••	•	•••	••••	No
Brown QuickFill® Single	•••••+	•••••+	••••	•	•••••+	••••	No
Brown Performance SE	••••	••••	•••	•	••••	•••	Yes

Sack paper for open mouth sacks, characteristics

White grades	Stretch MD	TEA index geom.	Tear index geom.	Printability	Runability at converting	Stiffness at filling
White Performance N	••	•••	••••	••	•••••	•••••
White NK	••	•••	••••	••	•••••	•••••
White Performance SE	••••	••••	••••	••	••••	••••
White SQ	••••	••••	••••	••	••••	••••
White XZ	••••	••••	••••	••	••••	••••
Duo White	•	••	••	•••	••••	••••
Flexible WS	•	••	•••	•••	•••	•••
Print	•	•	•	••••	•••	•••
Gloss Print	•	•	•	•••••	••	••
Brown grades						
Brown Performance N	••	•••	•••	•	•••••	•••••
Brown Performance SE	••••	••••	•••	•	••••	••••

Bendtsen ml/min

A measurement of surface roughness. Roughness significantly affects the printing quality, lamination and other demanding surface treatments.

Porosity/air resistance, Gurley seconds

Air resistance is a measurement of the time taken for 100 ml of air, under constant pressure, to pass through a specified area of a paper sheet. Short time signifies a highly porous paper.

TEA (Tensile Energy Absorption), J/m²

The most important sack paper strength property. This is verified by the correlation between TEA and drop tests. When a sack is dropped, the contents will move when

hitting the floor. This movement causes strain on the sack wall. To withstand this strain, the TEA should be high.

The energy will then be absorbed by a combination of the tensile strength and the stretch in the paper.

Tensile strength, kN/m

The tensile strength is the maximum force that the paper is able to withstand without breaking. Tensile strength is one parameter in the measurement of TEA.

Stretch, %

The elongation of the paper extended to rupture.