



BILLERUD SACK SOLUTIONS

WORLD-CLASS PRODUCTS AND SERVICES



WE SHOW THE WAY TO **BETTER BUSINESS**

Billerud makes the best sack paper in the world. But that is no reason for taking it easy. We want more. Through the years we have gained solid experience and considerable know-how when it comes to the value chain for sacks. This gives us the strength to both identify and solve problems with existing sacks and to develop new and innovative solutions. And now we have gathered everything under one roof – Billerud Sack Solutions.



WE HELP YOU ALL THE WAY

» **SACK DESIGN.** The optimum choice of paper, grammage sack design and sack size guarantees high functionality and cost-efficiency.

» **DESIGN AND PRINTABILITY.** Technical printing advice adapted to the choice of paper.

» **SACK PRODUCTION.** Higher profitability with optimal quality and productivity during conversion.

» **FILLING.** Sack design adapted to the filling process, thus optimising speed and filling.

» **LOGISTICS.** Increased efficiency in the transport chain from paper mill to end customer, including handling and stock-keeping.

» **SALES.** The packaging's form and design are improved for greater attractiveness.



Technical Consulting

Training & Seminars

TECHNICAL CONSULTING

- Choice of paper
- Design and improvement of sacks
- Increasing efficiency in sack production
- Optimisation of filling
- Improvements in the logistics chain

Billerud Sack Lab

All our know-how related to sack paper and sacks is gathered here. Using modern equipment, our specialists test strength and deaeration of sacks, surface-friction and sack performance during filling.

Test equipment

- **PILOT FILLING MACHINE** – Filling-time and weight, deaeration and other properties during sack filling are measured.
- **BIG-GURLEY** – Air flows through the sack wall to test deaeration performance.
- **MEGA-GURLEY** – Air flows through the whole sack to test deaeration performance.
- **DROP TEST RIG** – The strength of the filled sack when dropped is tested in accordance with ISO 7965.
- **SACK FRICTION TESTER** – Measures the friction between sacks and between sacks and other materials.

Via Billerud Pack Lab, we have access to advanced test equipment for analysis of print quality and barrier properties. So regardless of whether it is a question of strength, deaeration, filling, printability or barriers, we are more than willing to share our resources and know-how.

TRAINING AND SEMINARS

We arrange seminars for sack converters and brand owners – usually on the customer's premises or at one of our mills – in order to increase knowledge about sacks, design, function and cost effectiveness, and the options and opportunities Billerud Sack Solutions offers. In addition, the seminars provide us with a golden opportunity to get to know what our customers expect and need. Discussions that inspire us to think innovatively and develop our offer still further.

Examples of seminar subjects

- Paper and pulp production
- Paper properties
- Environmental aspects
- Printing technology and sack designs
- Sack production
- Filling technology
- Logistics





**Total
Customer
Value**

QuickFill®

BILLERUD TCV – TOTAL CUSTOMER VALUE

TCV is a development concept implemented in close collaboration with our customers. Together, we analyse all the costs and potential revenue improvements throughout the value chain and calculate how they can be reduced – from the purchase of paper to filled sacks and how the end user then utilises the sacks.

The advantage of the TCV programme is that the analysis of the value chain is combined with cost calculations that make the total costs visible. These calculations can then be used to simulate the effect of the different improvement measures.

TCV – step by step

Analysis of and improvements in the:

- Choice of paper and sack design
- Design and print quality
- Sack production
- Filling process
- Logistics chain

TCV gives results

We can promise that TCV will lead to lower costs and higher efficiency throughout the sack's value chain.

BILLERUD QUICKFILL®

The product family QuickFill® has been specially developed for valve sacks for fast filling of powdered goods, as for example building material, industrial minerals, chemicals and foodstuff. QuickFill® sacks offer the perfect combination of high strength and excellent deaeration during filling. Thanks to the high porosity, there is no need to perforate holes in the sacks. Non-porous sacks need to have perforation holes but will still deaerate slower than modern high-porosity sacks. QuickFill® sacks can be made smaller, with less paper and will perform better in filling and handling. Traditional perforated sacks tend to leave a trail of dust from the filling operation to the user of the sack. This is avoided using modern QuickFill® sacks.

QuickFill® can increase speed and thereby productivity in both sack conversion and sack filling. The family of high-porous sack kraft paper consists of several white and brown grades matched to be combined as outer and inner-ply and adapted to satisfy different requirements.



NINE REASONS FOR CHOOSING BILLERUD QUICKFILL®

1. Less paper per sack
2. Lower packaging weight
3. Stronger sacks
4. Cleaner sacks
5. Higher filling speed
6. Fewer broken sacks
7. Exact filling of sacks
8. Efficient palletising and storage
9. Easier to handle during transportation

SACK SOLUTIONS FOR ALL END USES

Billerud's wide range of sack kraft paper has been developed to satisfy the requirements of several industries and applications. Millions of tonnes of industrial products, foodstuffs and animal feed are packed in sacks made of Billerud's high quality sack kraft paper. To stay ahead, we invest considerable resources in research and development. We make sure that our mills are always equipped with the latest technology to ensure first class product quality.

White and Brown sack kraft paper

Our white and brown grades match each other for a number of important characteristics, allowing sack constructions with a brown inner and white outer ply. Besides a full range of white and brown QuickFill® grades for powdered goods filled in valve sacks, we also offer products with high stiffness suitable for open mouth sacks used for animal feed and other products. All grades feature excellent runability in high-speed sack converting lines.

Packaging attracting the attention of customers

To satisfy demands from brand owners requiring very good appearance and outstanding printability, we recommend our white clay-coated and white calendered grades. These can be used as the outer ply of the sack when a very attractive appearance is important at the point of sale, as is the case with consumer sacks. Our white sack kraft grades offer both good printability and high strength for functional and cost-effective packaging. White QuickFill® grades are being increasingly used to strengthen brand identity and attractiveness for building material, minerals and chemicals at the same time as they offer all the benefits of the QuickFill® concept.

Unique wood fibres from sustainable forestry

Billerud's sack kraft paper is made from 100% primary wood fibres from pine and spruce. Growing slowly in a harsh Scandinavian climate, these trees produce long and slender fibres. The unique wood fibres combined with our production process and know-how, enables us to produce world-leading sack kraft paper.

Let us show the way to better business.







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