



New-Generation Polypropylene for Mono-Spunbond Nonwovens

Achieving Softness and Savings
With a Single-Pellet Solution

Braskem
New ways to look at the world

Breakthrough Nonwoven Performance at Competitive Costs

Braskem's new-generation polypropylene (PP) resin is a single-pellet solution designed to deliver an optimum combination of fit, softness, functionality, efficiency, cost effectiveness and sustainability for absorbent hygiene products and medical gowns and drapes.

Benefit From the Softness and Savings Advantage

- Exceptional tactile and ductile softness, good tensile strength and abrasion resistance, without the use of additives, blends or bi-components;
- Ease of processing, without the need for additional equipment;
- Lower bonding temperatures for reduced energy consumption during conversion;
- Ability to recycle the nonwoven web back into mainstream production, thereby reducing waste.

Surpassing Industry Standards

Braskem's single-pellet solution offers a differentiated level of performance compared to other nonwoven solutions tested (Figures 1, 2 and 3 opposite page):

- Achieves a lower optimum bonding temperature (15°C to 20°C lower than standard homopolymer PP (hPP) or bi-component spunbond materials), which translates into a softer nonwoven material with less energy used for processing;
- Enables a broad bonding window (represented by the flatter line), providing fabric spinners with a larger operating window and the flexibility to customize processing conditions for the desired property balance;
- Even with lower bonding temperatures, the resin attains tensile properties comparable to hPP and excellent abrasion resistance for low fuzzing and linting in final articles.

Feel the Difference

Physical properties and processability can be measured with relative ease, using failure points and efficiency metrics. Softness, on the other hand, is something that is perceived through human senses and can be somewhat subjective.

Braskem conducted two sensory evaluations to gauge softness attributes of finished nonwoven fabrics made from various materials. Figure 4 (opposite page) shows the results of a sensory panel test in which multiple, highly trained panelists rated softness attributes based on touch and sound.



The lower numbers represent positive perceptions of softness, while the higher numbers signify negative perceptions. Nonwovens made with Braskem's PP resin received very favorable softness ratings, especially when compared to the standard hPP nonwoven. These findings were further validated in a separate test using the industry accepted Handle-o-Meter method for evaluating softness (Figure 5).

Partner With Us

Braskem's philosophy is to develop successful long-term customer partnerships offering added value and a competitive advantage. Our state-of-the-art Technology & Innovation Centers are designed to accelerate innovation and speed to market. Our two facilities – located in Pittsburgh, PA and Triunfo, RS, Brazil – employ more than 240 specialized professionals who work closely with customers on joint development projects that address challenging market requirements.

Our commercial sales representatives work hand-in-hand with technical service to ensure that procurement, manufacturing and product development are fully integrated. Collaborating at all touch points enables us to better understand customer needs. Partner with us and discover how Braskem's new-generation PP can transform your nonwovens. Contact your sales representative for more information, or visit www.braskem.com.

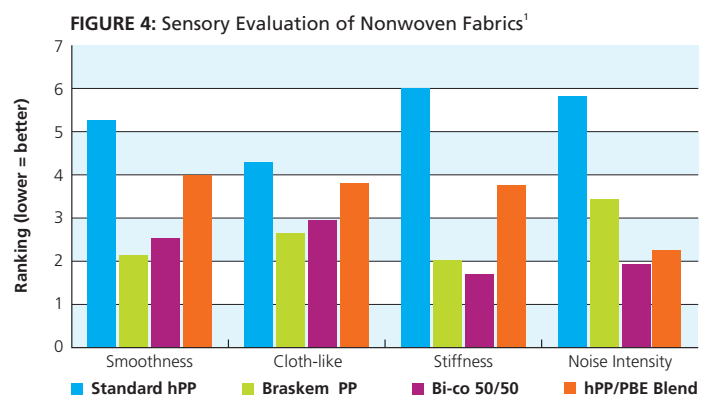
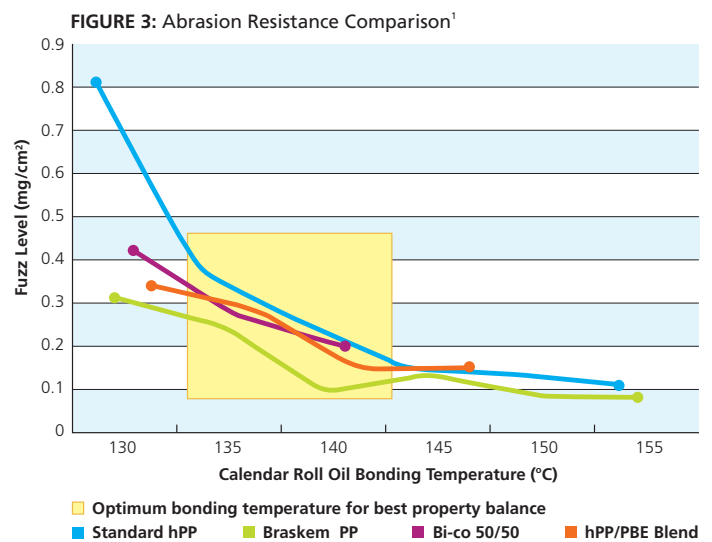
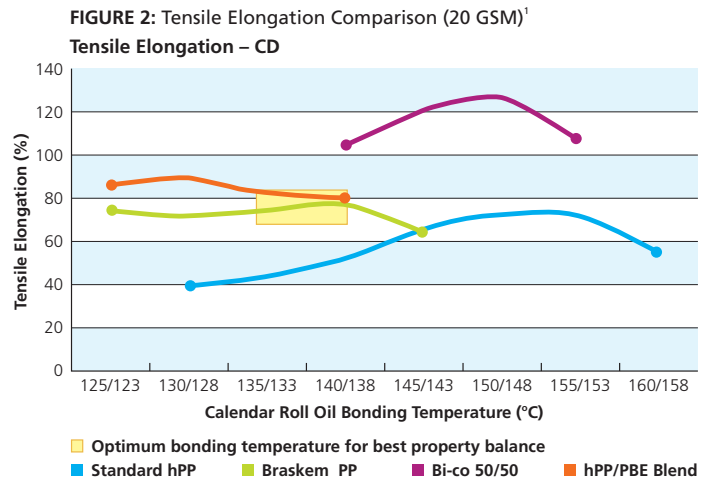
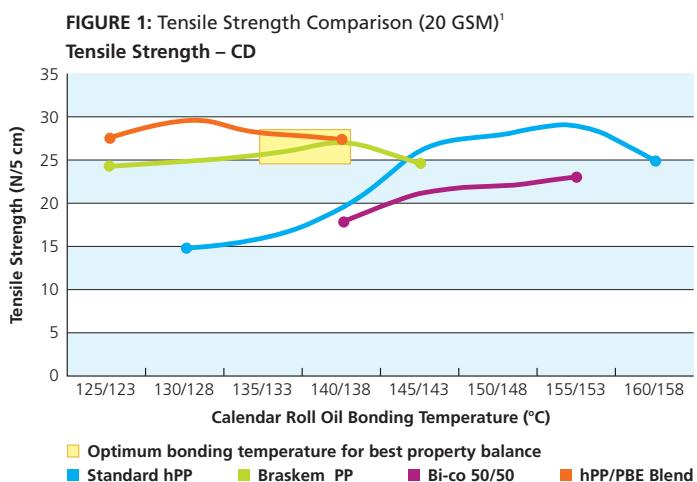
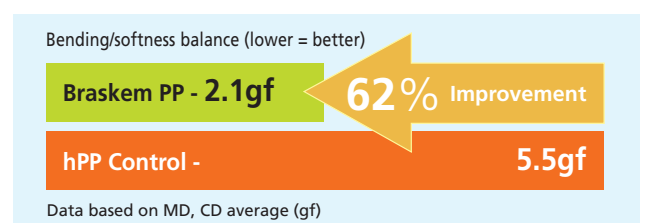


FIGURE 5: Handle-o-Meter Evaluation of Nonwoven Fabrics²



¹ Based on Braskem testing using accepted industry methods; nonwoven produced on Reicofil equipment.
² Based on Braskem testing using Thwing Albert Handle-o-Meter, nonwoven produced on Reicofil equipment.

Global Thermoplastics Leadership

Braskem is the largest thermoplastic resins producer in the Americas and a major global player in the polypropylene, polyethylene, PVC and chemicals markets. Committed to the principles of sustainable development since its formation in 2002, Braskem is also the world leader in biopolymers. The company is focused on using its technology and innovation strengths to set industry standards in service and support.

Braskem America is a leading producer of polypropylene in the U.S. Headquartered in Philadelphia, the company operates five production facilities located in Texas, Pennsylvania and West Virginia, and a Technology and Innovation Center in Pittsburgh. Braskem America is a wholly owned subsidiary of Braskem S.A.

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Innovation & Technology Center:

- Pittsburgh, PA

Manufacturing Units:

- Marcus Hook, PA
- Neal, WV
- Freeport, TX
- La Porte, TX
- Seadrift, TX



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