

ASPUN™ AT Advanced Technology Fiber Resins

Keep moving forward

The next generation of spunbonds and spunblowns

For decades, polyethylene- (PE-)based ASPUN™ Fiber Resins have offered exceptional performance for a broad range of nonwoven hygiene applications.

Now, our most recent development, **ASPUN[™] AT Advanced Technology Fiber Resins**, is taking our ultra-soft ASPUN[™] technology to new levels.



ASPUN™ AT Fiber Resins add enhanced processability and durability to the proven softness, drapability and comfort of ASPUN™ Resins – making them an excellent choice for spunbond and spunblown fabrics used in:

- Personal hygiene wearables
- Nonwoven wipes
- Other spunbond and spunblown nonwoven applications

In addition, this exciting breakthrough enables production of high-quality bicomponent (bico) and monocomponent (mono) materials – without the need for a polypropylene (PP) component.

Figure 1 shows how ASPUN™ AT Fiber Resins offer improved spinnability and abrasion resistance while maintaining the mechanical performance and softness of existing ASPUN™ Resins.

Figure 1: Comparison of ASPUN™ AT and ASPUN™ Fiber Resins(1,2)



(1) Typical values, not to be construed as specifications. Users should confirm results by their own tests. (2) Basic sample weight: 20 gsm (grams per square meter)



Need more proof? Figure 2 clearly demonstrates the enhanced abrasion resistance of mono spunbonds made with ASPUN™ AT Fiber Resins.

Equally important, these advanced solutions offer significantly increased softness and drapability compared to both mono and bico PP-based fibers (Figure 3).

Figure 2: Martindale abrasion resistance (60 cycles)(1,2)

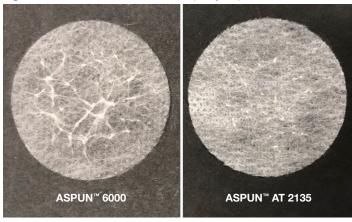
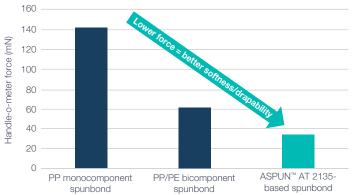


Figure 3: Handle-o-meter evaluation(1)



Why mono matters

By offering a mono-material and monocomponent solution for spunbonds and spunblowns, ASPUN™ AT Fiber Resins are helping drive toward development of easier, more efficient recycling operations.

In conjunction with those efforts, we're working closely with industry experts and other development partners on a number of sustainability-focused programs, including:

- High PE content prototypes ("extreme PE" diapers), which focus on simplifying hygiene product construction to improve recycling streams and recyclate
- Advanced recycling initiatives including PCR (post consumer recycled) and PIR (post industrial recycled) content options
- All PE wipes that combine strong performance with a lower carbon footprint
- Development of bio-based PE from renewable resources such as tall oil





Even better together

Along with our deep understanding of material science, ASPUN™ AT Fiber Resins allow us to work closely with customers to develop tailored solutions for both new and existing applications. Add in Pack Studios – an exclusive, global network of technical experts, equipment and testing capabilities – and we can help bring innovations to market even faster and more cost efficiently.

We'd love to hear about your nonwovens challenges. We believe that by joining forces, we can help produce more sustainable, circular solutions for the future. Please visit dow.com or contact your Dow representative to get the conversation started.

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