Milliken

Milliken[®] Hyperform[®] HPN[®] 900ei

High-Performance Additives for Polypropylene

Hyperform[®] HPN[®] 900ei is a performance additive designed for use by thin-wall injection molders in polypropylene homopolymers and mini-randoms.

PP modified with this additive yields parts with lower haze, good optical attributes and an overall cleaner look. At the same time, it exhibits an excellent balance of physical properties with both good stiffness (flexural modulus) and impressive impact performance.

Such resin also provides for isotropic shrinkage (similar shrinkage in both directions, thereby reducing warpage) and less overall shrinkage, leading to higher-quality parts. The material's higher heat deflection temperature, meanwhile, offers the improved heat resistance for those applications that require it.

Enhanced Productivity & Sustainability

The resin's higher crystallization temperature enabled by the additive allows injection molders to cut their energy use by reducing cycle times and realizing faster overall processing. With the resulting energy savings certified by the independent agency UL (Underwriter Laboratories), parts molded with the material can bear the UL Environmental Claim Validation label. Displaying this UL label allows brand owners to promote their commitment to sustainability.

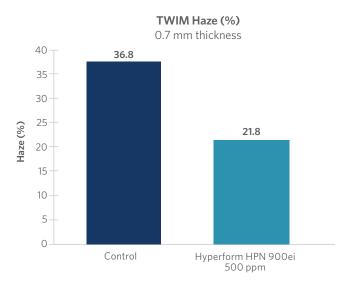


Improved Aesthetics

Hyperform HPN 900ei reduces the haze and the yellowness index, yielding final parts that are cleaner, clearer and more transparent, which can further enhance sustainability by allowing for more inter-material replacement.

Applications

Packaging



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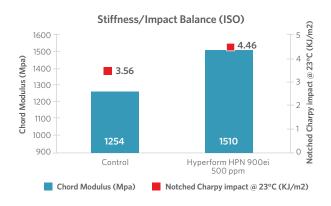
Hyperform[®] HPN[®] 900ei

High-Performance Additives for PP



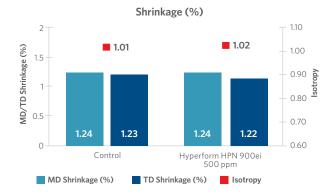
Balanced Physical Properties

Traditional nucleating agents require customers to sacrifice impact to gain greater stiffness. Hyperform HPN 900ei delivers improved stiffness (Flexural Modulus) while maintaining the impact performance



Isotropic Shrinkage

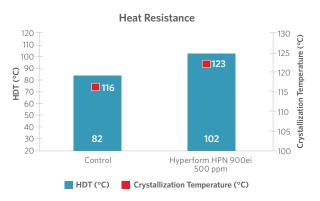
The unique isotropic shrinkage behavior of Hyperform HPN 900ei allows dimensionally stable, non-warping PP parts.



Stiffness/Impact Balance (ASTM) 1600 60 @ 23°C (J/m) Secant Modulus (Mpa) < 50 46.9 40 32 mpact 30 poz 20 Notched 10 1% 200 1515 Control Hyperform HPN 900ei 500 ppm 1% Secant Modulus (Mpa) Notched Izod impact @ 23°C (J/m)

Heat Resistance and Crystallization Behavior

Hyperform HPN 900ei provides a higher heat deflection temperature (HDT) and an increase in crystallization temperature.



Please contact your Milliken representative for any additional information.

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