

Imagine the possibilities

Energy lives here™



Vistamaxx™ performance polymers provide new possibilities to improve and extend the properties of polypropylene (PP) to meet specific application requirements. Easy to disperse and highly compatible, Vistamaxx polymers are particularly effective in modifying PP to enhance flexibility, soft touch, impact strength and adhesion, while maintaining clarity and reducing stress whitening.

The versatility exhibited by Vistamaxx performance polymers enable customers around the world to develop innovative PP blends and compounds that can be used to successfully add value to a range of applications, including:

- food containers
- beverage cups and containers
- storage totes and boxes
- luggage
- toys and infant care products

Vistamaxx performance polymers can provide the inspiration for product enhancements or genuine “game changing” innovation. The potential of Vistamaxx polymers, combined with ExxonMobil Chemical’s application knowledge and processing expertise, can make a real difference to your applications.

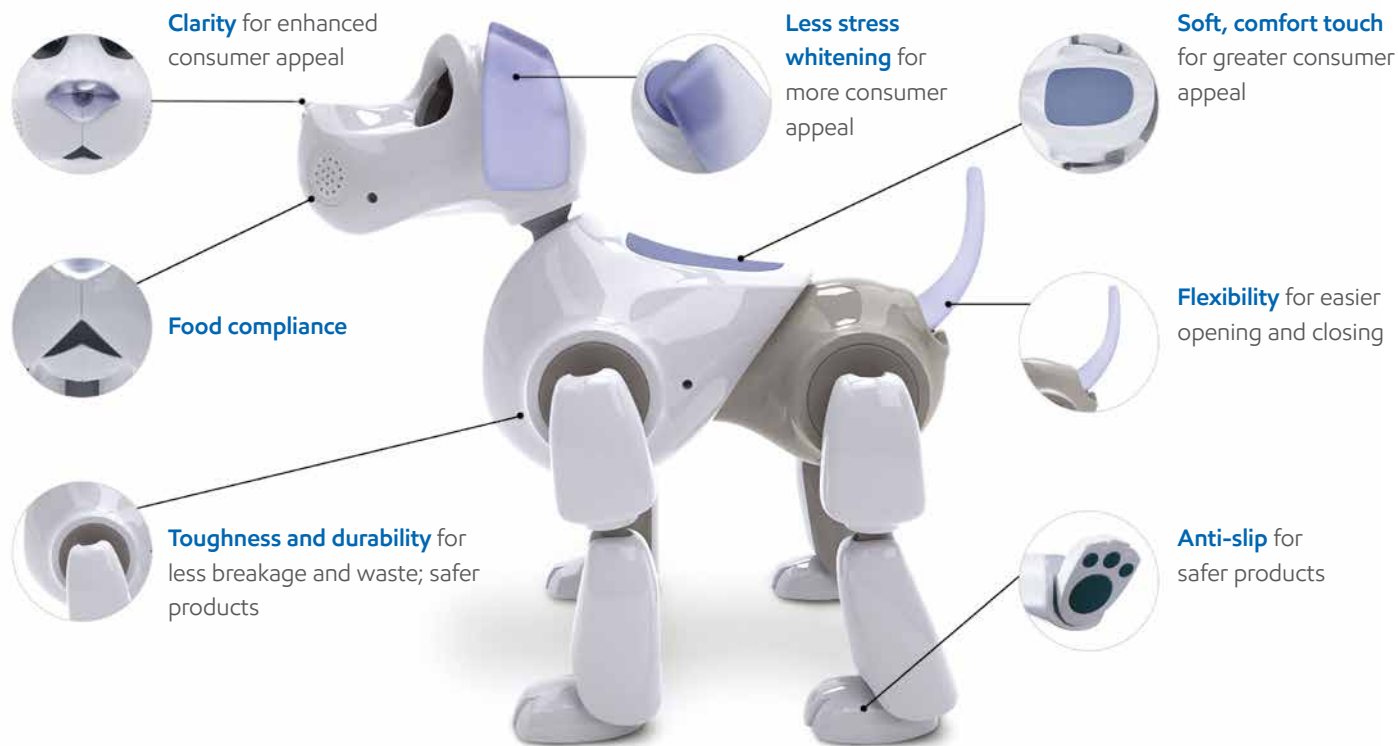
Key advantages

- Maintain clarity
- Toughness and durability
- Less stress whitening
- Food compliance
- Flexibility
- Anti-slip
- Soft, comfort touch



Imagine the possibilities with Vistamaxx™ performance polymers

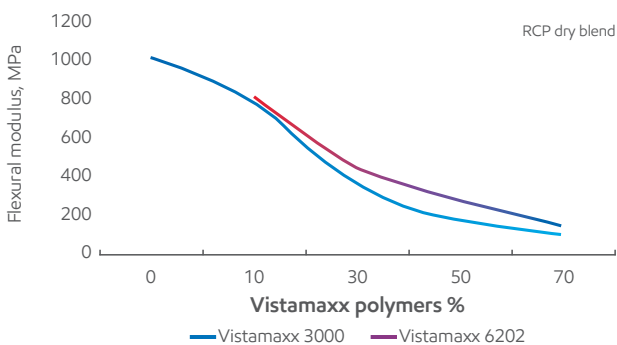
Adding Vistamaxx performance polymers to your PP formulation can lead to stronger, more durable and appealing products. Dry-blending Vistamaxx polymers with PP formulations allows enhancements to product performance using your existing manufacturing equipment.



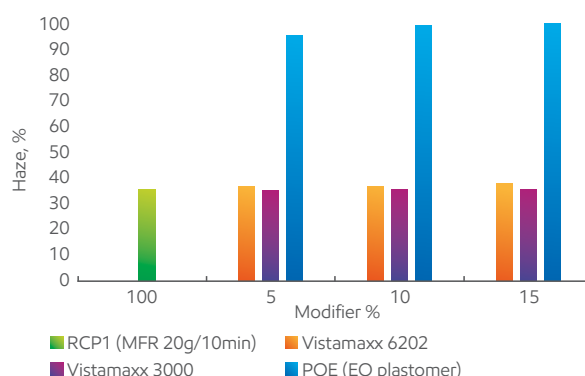
Blend Vistamaxx performance polymers with ExxonMobil™ PP random copolymer polypropylene (RCP), homopolymer (hPP) or impact copolymer (ICP) resins to enhance properties of flexibility, clarity and impact strength.

Vistamaxx performance polymers improve flexibility and clarity

Flexural modulus

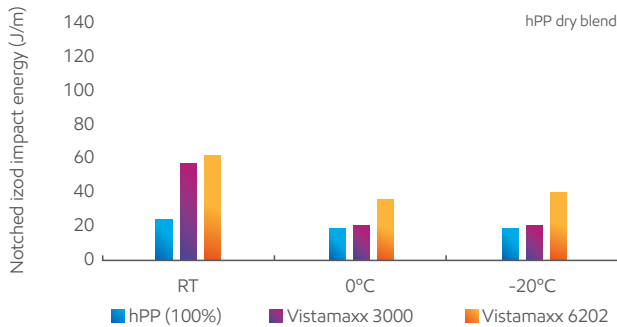


Optical properties - modifier polymer blends with RCP 1 mm thick discs



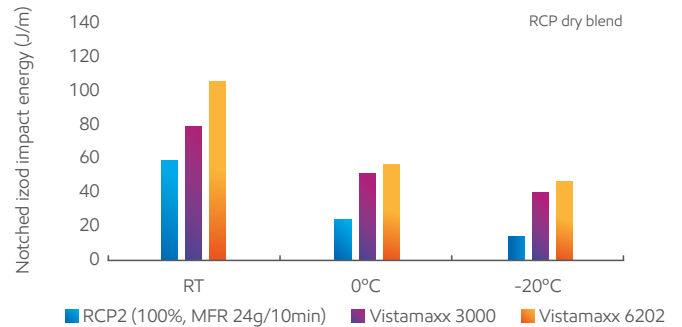
Vistamaxx™ performance polymers improve impact strength

Impact strength - 10% Vistamaxx polymers in hPP



Test method: based on ASTM D256

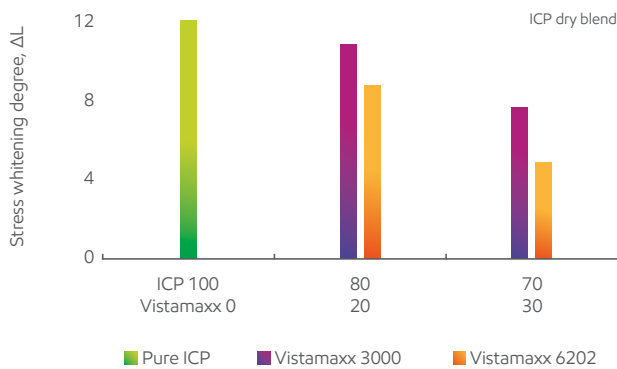
Impact strength - 10% Vistamaxx polymers in RCP



Test method: based on ASTM D256

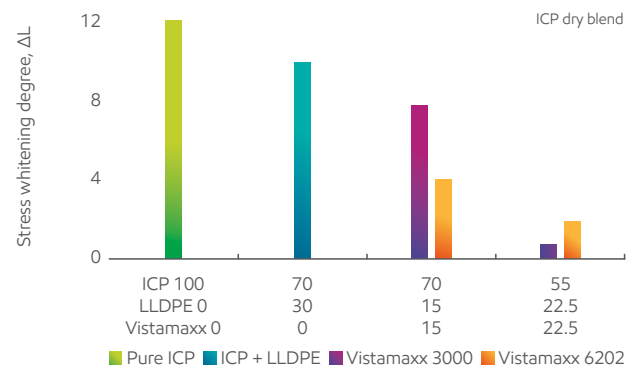
Vistamaxx performance polymers effectively reduce stress whitening

Stress whitening reduction by Vistamaxx polymers



Test method: ExxonMobil test methods

Stress whitening reduction by Vistamaxx polymers and LLDPE



Test method: ExxonMobil test methods

Individual material properties

Properties	Vistamaxx™ 3000	Vistamaxx™ 6202	ExxonMobil™ PP3155E5 hPP	ExxonMobil™ 6101XR LLDPE	ExxonMobil™ PP7033E3 ICP
MFR ⁽²⁾ (230°C/2.16 kg) g/10 min	8	20	36	-	8
MI ⁽²⁾ (190°C/2.16 kg) g/10 min	-	-	-	20	-
Density, D ⁽³⁾ g/cm ³	0.873	0.873	0.9	0.924	0.9
Hardness, 15 sec ⁽⁴⁾ Shore A/D	33D	66A	-	-	-
Flexural modulus 1% Secant ⁽⁵⁾ MPa (psi)	59.3 (8610)	12.3 (1790)	1386.0 (201000)	-	1140 (16500)

(1) Values are typical and should not be interpreted as specifications
 Test methods: (2) ASTM D1238, (3) ASTM D1505, (4) ASTM D2240, (5) ASTM D790A



Food container lids

Improved performance and broad food compliance
Vistamaxx™ performance polymers at 50-70% in hPP deliver:

- transparency for excellent appearance
- no odor issues for market acceptance
- improved toughness for better durability
- increased flexibility for easier opening/closing
- US FDA, EU, JHOSPA and China approved for food contact applications.



Disposable cups

Better flexibility and reduced breakage
Vistamaxx polymers used at 3-10% in hPP deliver:

- improved flexibility reduces breakage in production and transportation
- better masterbatch dispersion for printed cups
- downgauging between 0.1 – 0.2 g/cup (approx. 4% weight reduction)
- good clarity for improved product appearance
- better processing than other standard impact modifiers

Stationery sheets

Reduced stress whitening and improved performance
Vistamaxx polymers used at 5-10% in hPP deliver:

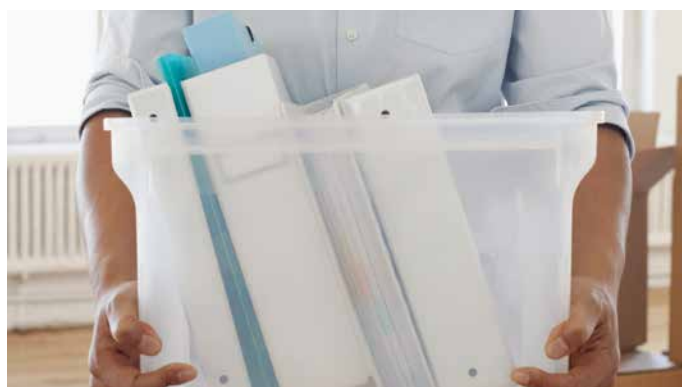
- reduced stress whitening
- improved impact performance
- maintained clarity



Luggage

Reduced stress whitening and improved durability
Vistamaxx polymers and LLDPE used at 5-15% respectively in ICP deliver:

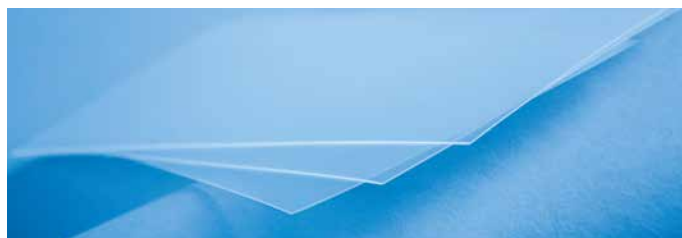
- reduced stress whitening due to synergy effect of Vistamaxx polymers and LLDPE
- improved impact performance
- reduced scrap while manufacturing
- tailorable solution on final product



Rigid clear totes

Impact, transparency at a lower cost
Vistamaxx polymers at 3-10% in RCP deliver:

- improved impact performance for significantly reduced breakage
- transparency equivalent to RCP for excellent overall appearance
- lower cost impact modification than with SEBS



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