**VERSIFY™**

A clear choice for impact modification

Would you like to produce clear polypropylene containers that are less likely to break?

Do you want to see your raw materials deliver better transparency?

Could your business benefit from faster processing and shorter cycle times?

Do your customers prefer to see more creative packaging designs?

If you’ve answered yes to any of these questions, why not take a look at **VERSIFY™** — impact modifier from The Dow Chemical Company (Dow) for products with impact!

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**Core Features**
- Fully compatible with polypropylene
- Enhanced optics
- Toughness down to -10°C
- No stress whitening
- Fast processing
- Loading freedom for tailored toughness

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**Core Benefits**
- No need to pre-compound
- Transparency of end-product
- Reduced brittleness
- Enhanced display of packaged goods
- High productivity
- Maximum performance at low elastomer loading

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**VERSIFY™**

Different VERSIFY™ grades are available and suitable for impact modification of polypropylene depending on specific process needs.

VERSIFY™ Plastomers and Elastomers are contributing to Dow’s commitment to innovation and to delivering interesting solutions designed to respond to market requirements and address customers’ needs.

Visit www.dow.com/versify to find out how using VERSIFY™ Plastomers and Elastomers can open minds and markets.

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**ABOUT VERSIFY™**

VERSIFY™ Plastomers and Elastomers are a versatile family of specially propylene-ethylene copolymers produced with an innovative catalyst in combination with Dow’s proprietary INSITE™ Technology and Solution Process.

The remarkable molecular architecture of these specialty polymers provides films, fibers, and molded parts with an exceptional combination of excellent optics, sealing and hot tack performance, plus elasticity, flexibility, softness and compatibility in blends.

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**ABOUT DOW**

For more information on products, innovations, experts, and other services available to you from Dow, visit www.dow.com or contact us using these numbers:

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**VERSIFY™**

The benefits are clear. See how VERSIFY™ could change your view of impact modifiers – for good.

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NEW GENERATION VERSIFY™ ELASTOMER – TAKING ON YOUR CHALLENGES

YOUR CHALLENGE: “TOUGHNESS”
Breakage during handling is unacceptable for customers, particularly where safety is concerned – you know achieving container toughness along with achieving lighter weight can be challenging with high melt flow clarified random copolymer, particularly at low temperatures.

DOW’S SOLUTION
VERSIFY™ allows molders to increase toughness through addition of rubber rather than adding to wall thickness – allowing down gauging opportunities and saving on raw materials.

Figure 1: VERSIFY™ allows higher toughness for molded-in toughness, and building it in can be adapted at modeler’s discretion, depending on performance requirements.
Source: VERSIFY™ in a 42 MFR c-RCP matrix. Measured according to ISO 178. Typical values, not to be construed as specification limits.

YOUR CHALLENGE: “OPTICS”
A customer wants packaging with high transparency for a sparkling display of their finished goods – clarified random copolymer delivers high clarity but its impact resistance is limited. With VERSIFY™ your customers will not need to compromise.

DOW’S SOLUTION
Using propylene-based elastomer as an impact modifier can deliver excellent optics for “see-through” appearance. VERSIFY™ has superior optics with low haze and no gels.

Figure 2: Optics (haze) are not affected by using VERSIFY™ as an impact modifier.
Source: VERSIFY™ in a 42 MFR c-RCP matrix. Measured according to ASTM D1003. Typical values, not to be construed as specification limits.

YOUR CHALLENGE: “FREEDOM OF DESIGN”
Brand owners jostling for position on crowded shelves want more flexibility of design to help their products stand out – lack of material toughness may limit design choices.

DOW’S SOLUTION
VERSIFY™ elastomer is a propylene-based impact modifier in injection molding that can be dry-blended and added at press, meaning molders can better address specific customer needs without having to buy-in extra pre-compounding equipment or having to rely on ready-to-use solutions that limit flexibility.

Figure 3: VERSIFY™ can help to deliver toughness without adding any compromise or limitations.
Source: VERSIFY™ in a 100 MFR c-RCP matrix. Measured according to ASTM D1003. Typical values, not to be construed as specification limits.

VERSIFY™
A clear choice for impact modification in injection molded polypropylene containers.

DOW’S SOLUTION
Unlike ethylene-based elastomers, VERSIFY™ is fully polypropylene-compatible with no need for pre-compounding, reducing time and costs. Normally dry-blending is sufficient and loading can be adapted at press, depending on performance requirements.

Injection molders of clear polypropylene containers have specific challenges to overcome – which is why Dow designed VERSIFY™ with you in mind.

VERSIFY™ elastomer is a propylene-based impact modifier for injection molders wanting to produce storage containers with reduced brittleness and improved transparency without compromising on processing efficiency.

If you produce clear injection molded polypropylene containers – and you want the processing advantages of high melt flow polypropylene (>25 Melt Flow Rate) as well as properties such as toughness and enhanced optics – VERSIFY™ could be a solution.

Table 1: VERSIFY™ provides flexibility, as well as superior mechanical performance compared to alternatives.
Source: Dow laboratory tests

Want to know more?
www.dow.com/versify  www.dowelastomers.com