# COLORMATRIX<sup>™</sup> ULTIMATE<sup>™</sup> UV LIGHT BLOCKING ADDITIVES

UV absorbing additive technology with broadband protection for PET and rPET



## **COLORMATRIX<sup>™</sup> ULTIMATE<sup>™</sup> UV TECHNOLOGY**

The ColorMatrix<sup>™</sup> Ultimate<sup>™</sup> UV range offers costeffective light blocking for UV sensitive products packaged in PET. Both UV390 and UV390R technologies can be particularly effective in working towards lighter, more recyclable packaging, alongside potential productivity benefits and maintaining product protection.



## A cost-effective, easy-to-use solution

The Ultimate UV range is a liquid dispersion technology offering highly accurate and costeffective dosing. Direct machine dosing can provide excellent shot-to-shot consistency and eliminate potential mold plate-out, thus easing processes and control. As a result, this can reduce downtime issues and increase productivity.

#### Good clarity and recyclability

Ultimate UV dosing is highly consistent offering excellent part clarity with a superior aesthetic. It has no negative effect on recyclability, physical performance characteristics or color of the recycled material.

### **Optimized product protection**

Ultimate UV technology used in combination with ColorMatrix liquid colors can offer enhanced light protection into the visible range, particularly relevant to vitamin enhanced products. In some situations the Ultimate UV range can vastly improve both the processing and mechanical properties of packaging incorporating recycled material. Protection up to 575nm is possible, whilst also maintaining transparency.

#### **Brand assurance**

Consistent product integrity is vital to maintaining brand image. ColorMatrix works closely with customers to model usage rates and to ensure that dosing of Ultimate UV is optimized and product protection is assured for the required technology of the product.

#### **Global formulations**

Ultimate UV technology is formulated for global use and can be used in combination with other ColorMatrix colorant and additive solutions.

## Why is UV light an issue?

UV light can cause reactions in UV sensitive food and beverages that result in changes in taste, odor and texture, as well as degrading colored dyes and pigments in plastic packaging. Ultimate UV technology provides an effective UV barrier allowing less than 10% UV light transmission up to 395nm—the edge of the visible spectrum (see graph below).

## Applications

The Ultimate UV range can help extend shelf life for UV sensitive food, beverage, personal care and home cleaning products packaged in a wide range of thicknesses of PET containers.

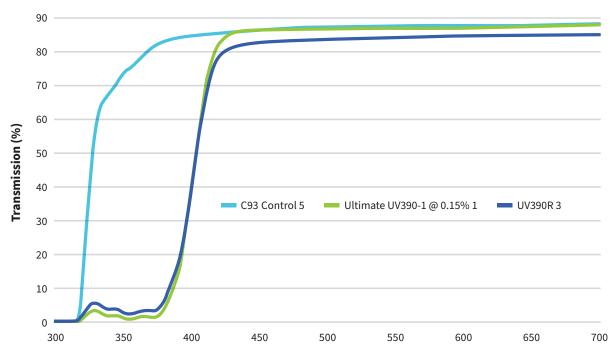
## **Regulatory information**

Ultimate UV is suitable for use under EU and FDA food contact legislation. Full regulatory details for your region are available on request.

## Handling

Ultimate UV is supplied as a liquid dispersion which offers convenient, accurate and consistent dosing from minimal product addition.





Wavelength (nm)



## COLORMATRIX<sup>™</sup> ULTIMATE<sup>™</sup> UV TECHNICAL AND REGULATORY INFORMATION

|                         | ColorMatrix <sup>™</sup> Ultimate <sup>™</sup> UV390 | ColorMatrix <sup>™</sup> Ultimate <sup>™</sup> UV390R |  |  |
|-------------------------|--|---|--|--|
| UV Protection           | Up to 390 nm   | Up to 390 nm  |  |  |
| User                    | Convertor  | Convertor   |  |  |
| Color                   | Colorless  | Colorless   |  |  |
| Recycling Accreditation | EPBP<br>APR  | EPBP*<br>APR*   |  |  |
| Lightweighting          | ×  | <ul> <li>✓</li> </ul>                                 |  |  |
| Productivity Saving     | ×  | <ul> <li>✓</li> </ul>                                 |  |  |

\* Individual components are EPBP approved

| Product Type  | CC Code    | EU | FDA | Mercosur | China |
|---|------------|----|-----|----------|-------|
| ColorMatrix <sup>™</sup><br>Ultimate <sup>™</sup> UV 390  | CC01055275 | •  | •   | •        | ٠     |
| ColorMatrix <sup>w</sup><br>Ultimate <sup>™</sup> UV 390R | CC10348919 | ٠  | ٠   | •        | _     |

Food contact uses are subject to regulatory limitations and use conditions

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