

# CYTEC



## Polymer Additives Product Portfolio



# Advanced Stabilization Solutions for Global Markets

Through technical advances in polymer design and additive technology, plastics continue to replace other materials of construction in even the most demanding applications. Stabilizers help plastics maintain their integrity through compounding, processing, fabrication and end use. They protect critical physical properties and help to prevent color change, surface crazing and gloss loss. UV stabilizers help prevent loss of key properties on exposure to sunlight. Stabilizer technology has played a critical role in the creation of new applications and markets for plastics.

Cytec Polymer Additives offers a range of technically superior products that enhance the performance of agricultural plastics, automotive interior and exterior parts, durable components for building and construction, displays and electronics, fibers, packaging, photovoltaic panels, rotomolded containers, and a variety of other plastics and coatings applications. Our product portfolio includes:

- CYASORB CYNERGY SOLUTIONS® stabilizers
- CYASORB THT® light stabilizers
- CYASORB® light stabilizers
- CYANOX® antioxidants
- CYASTAT® antistatic agents

CYASORB CYNERGY SOLUTIONS stabilizers are designed to meet the demanding performance requirements of specific plastics and coatings applications, using Cytec's innovative technologies and in-depth market expertise. Cytec's CYASORB and CYASORB THT stabilizers and CYANOX antioxidants are designed to help plastics perform better and last longer. CYASTAT antistatic agents prevent electrostatic discharge when used topically in a variety of plastics and coatings materials.



*Greenhouses, tapes and mulch films*

## What Sets Cytec Apart?

- Focused approach to customer and market needs
- Products that provide superior performance in demanding environments, cost-effectively and with simplified dosing
- Over fifty years of experience in stabilization
- Global technical support



*Automotive Interior*



*Automotive Exterior*

# Product Overview

## Application Legend:

AGR: Agricultural Film

AUT: Automotive

BC: Building and Construction

INJ: Injection Molding

ROTO: Rotomolding

PV: Solar Panels

PF: Performance Fibers (Polyolefin Fibers, Spandex, etc.)

| Product     | Function    | Application       | Chemistry                   | Physical Form |
|-------------|-------------|-------------------|-----------------------------|---------------|
| CYANOX 1790 | Antioxidant | PF/BC/INJ/AUT/AGR | Hindered Phenolic           | Powder        |
| CYANOX 2246 | Antioxidant | Other             | Hindered Phenolic           | Powder        |
| CYANOX 2777 | Antioxidant | PF/BC/INJ/AUT/AGR | Hindered Phenolic/Phosphite | Powder        |
| CYANOX 425  | Antioxidant | Other             | Hindered Phenolic           | Powder        |

|                                    |         |          |             |          |
|------------------------------------|---------|----------|-------------|----------|
| CYASORB CYNERGY SOLUTIONS A400     | CYNERGY | AGR      | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS A430     | CYNERGY | AGR      | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS A440P    | CYNERGY | AGR      | Proprietary | Pellets  |
| CYASORB CYNERGY SOLUTIONS B877     | CYNERGY | BC       | Proprietary | Pellets  |
| CYASORB CYNERGY SOLUTIONS L143-50X | CYNERGY | Coatings | Proprietary | Liquid   |
| CYASORB CYNERGY SOLUTIONS R300     | CYNERGY | ROTO     | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS R315     | CYNERGY | ROTO     | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS R333     | CYNERGY | ROTO     | Proprietary | Pellets  |
| CYASORB CYNERGY SOLUTIONS R350     | CYNERGY | ROTO     | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS S138     | CYNERGY | PV       | Proprietary | Granules |
| CYASORB CYNERGY SOLUTIONS V703     | CYNERGY | AUT/INJ  | Proprietary | Pellets  |
| CYASORB CYNERGY SOLUTIONS V-New    | CYNERGY | AUT/INJ  | Proprietary | Pellets  |



Performance and specialty fibers



Encapsulant films and back sheets for photovoltaic systems



| Product            | Function       | Application                       | Chemistry           | Physical Form |
|--------------------|----------------|-----------------------------------|---------------------|---------------|
| CYASORB THT 4611   | UV Stabilizer  | INJ/ROTO/PIPE/BLOW MOLDING        | Proprietary         | Pastilles     |
| CYASORB THT 4801   | UV Stabilizer  | INJ/ROTO/PIPE/BLOW MOLDING        | Proprietary         | Pastilles     |
| CYASORB THT 6435   | UV Stabilizer  | INJ/ROTO                          | Proprietary         | Pastilles     |
| CYASORB THT 6460   | UV Stabilizer  | AGR                               | Proprietary         | Pastilles     |
| CYASORB THT 7001EF | UV Stabilizer  | INJ/BC                            | Proprietary         | Granules      |
| CYASORB UV-1164    | Light Absorber | ALL                               | Triazine Technology | Powder        |
| CYASORB UV-1164G   | Light Absorber | Coatings, Other                   | Triazine Technology | Wax           |
| CYASORB UV-1164L   | Light Absorber | Coatings, Other                   | Triazine Technology | Liquid        |
| CYASORB UV-2126    | Light Absorber | Other                             | BZP                 | Powder        |
| CYASORB UV-24      | Light Absorber | ALL                               | BZP                 | Powder        |
| CYASORB UV-2908    | UV Stabilizer  | ALL                               | Hindered Benzoate   | Powder        |
| CYASORB UV-3346    | UV Stabilizer  | ALL                               | HALS                | Pastilles     |
| CYASORB UV-3529    | UV Stabilizer  | ALL                               | HALS                | Pastilles     |
| CYASORB UV-3638F   | Light Absorber | PET Fibers, Bottles, Films and PC | Other               | Powder        |
| CYASORB UV-3808PP5 | UV Stabilizer  | INJ/AUT                           | Proprietary         | Pellets       |
| CYASORB UV-3853    | UV Stabilizer  | INJ/AUT                           | HALS                | Wax           |
| CYASORB UV-3853PE5 | UV Stabilizer  | INJ/AUT                           | HALS                | Pellets       |
| CYASORB UV-3853PP4 | UV Stabilizer  | INJ/AUT                           | HALS                | Pellets       |
| CYASORB UV-3853PP5 | UV Stabilizer  | INJ/AUT                           | HALS                | Pellets       |
| CYASORB UV-3853S   | UV Stabilizer  | INJ/AUT                           | HALS                | Granules      |
| CYASORB UV-416     | Light Absorber | Other                             | BZP                 | Powder        |
| CYASORB UV-531     | Light Absorber | ALL                               | BZP                 | Flake         |
| CYASORB UV-5411    | Light Absorber | ALL                               | BZT                 | Powder        |
| CYASORB UV-9       | Light Absorber | ALL                               | BZP                 | Powder        |

  

|             |                  |                    |               |        |
|-------------|------------------|--------------------|---------------|--------|
| CYASTAT 609 | Antistatic Agent | Plastics, Coatings | Ammonium Salt | Liquid |
| CYASTAT SN  | Antistatic Agent | Plastics, Coatings | Ammonium Salt | Liquid |
| CYASTAT SP  | Antistatic Agent | Plastics, Coatings | Ammonium Salt | Liquid |



PP, PE and PA turf for playgrounds and landscaping



TPO Roofing Membranes



### CYASORB CYNERGY SOLUTIONS® A Series

CYASORB CYNERGY SOLUTIONS® A series products protect polyethylene mulch film and greenhouse film covers during outdoor exposure even when exposed to aggressive agrochemicals like burning sulfur. A series also protects the films during film extrusion and provides enhanced thermal protection to the films during their service life (4 years+ for greenhouse films; 2 years+ for mulch).



### CYASORB CYNERGY SOLUTIONS B Series

CYASORB CYNERGY SOLUTIONS® B series delivers exceptional UV and long-term thermal protection to polyolefins used in outdoor construction applications. B series products can be used in TPO and PP, with or without filler and can also be used in multi-layered membrane. With B series, parts can be painted without blooming and delamination concerns. Applications include TPO roofing membranes, roofing tiles, siding, shutters, decking, fencing and trim.



### CYASORB CYNERGY SOLUTIONS L Series

CYASORB CYNERGY SOLUTIONS L series addresses the demanding UV requirements of the coating industry. L series products offer extraordinary UV protection and are suitable for use in a variety of applications, including top, clear and base coats, 1K and 2K systems and on plastic or metal substrates. As low viscosity solutions, L series products do not require any premix setup, which can lower operating costs. L series products are for use by automotive OEMs and refinishers, and in general industry applications, ACE and other coating industry segments.



### CYASORB CYNERGY SOLUTIONS R Series

CYASORB CYNERGY SOLUTIONS R series provides unsurpassed thermal and UV protection to rotomolded PE and PP polyolefin parts to UV 20+. R series products provide a broad processing window, excellent color out of mold and superior resistance to color shift under thermal, NOx or UV exposure. Applications include bulk tanks and containers, outdoor furniture, boats and kayaks and other outdoor leisure equipment. R series is also suited for use in polyolefins that are injection or blow molded and in pipe applications.



### CYASORB CYNERGY SOLUTIONS S Series

CYASORB CYNERGY SOLUTIONS S series provides superior UV and thermal protection to the encapsulants and backsheets that protect the solar cell in photovoltaic applications. For EVA and polyolefin encapsulants, S series enhances long-term thermal and hydrolytic stability, and minimizes haze formation and color shift during service. S series for encapsulants also provides extended UV protection to the module, with a consistent and broad light transmission window for better light capture. For backsheets, S series provides enhanced UV protection for long service life with discoloration resistance.



### CYASORB CYNERGY SOLUTIONS V Series

CYASORB CYNERGY SOLUTIONS V series provides enhanced UV protection to plastics used inside and outside the car. V series products can be used in a variety of polymers, including PP, TPO, TPU, TPE and PE, with or without fillers or glass-reinforced systems. Applications include air management systems, door panels, seat back covers, head/side impact areas, IP skin, top pads and air bag covers, headliners, fender liners and flares, body side molding, cladding and rocker panels, tail light lens, cowl vents and bumper fascia.



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