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VANDERBILT

Plastics Brochure

Chemicals and Minerals for the Plastics Industry from R.T. Vanderbilt Company, Inc.



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Chemical and Minerals for the Plastics Industry from R.T. Vanderbilt Company, Inc.

The Vanderbilt Plastics Department prides itself on our ability to work closely with our customers to help solve compounding and stabilization problems. Additionally, our emphasis on new product development enables us to be responsive to the ever changing needs of today's Plastics Industry.

We have a wide range of products for the Plastics Industry including polymer stabilizers, polymer reinforcing agents, and polymer modifiers. These materials are used extensively in the manufacture of quality polyurethane, polyethylene, polypropylene, and polyamide products.

SCORCH INHIBITORS

VANOX[®] 945 Antioxidant is a patented nonvolatile, highly effective antioxidant system designed specifically for use by polyurethane polyol manufacturers as their anti-scorch system. It is significantly less fugitive in foams than systems containing BHT.

VANOX 982 is a patent-pending, less volatile scorch inhibitor for use in polyurethane slab stock foam production. Compared with competitive liquid blends, **VANOX 982** measurably reduces temperature build observed during post production and better suppresses foam-core decomposition known as scorch. It also features lower levels of color-contributing additives, reducing yellowing resulting from warehouse storage and ambient light exposure. **VANOX 982** is a process-friendly blend designed for easy transfer into polyol tanks. With its superior level of protection, color reduction and ease of use, **VANOX 982** is an excellent scorch inhibitor choice.

VANOX 1887 is an effective supplemental liquid amine antioxidant recommended for use in flexible polyurethane foam formulations that tend to scorch.

SONGNOX[®] 1076 Phenolic Antioxidant is a primary antioxidant for polyurethane polyols. It provides long-term heat stability by protecting physical properties during storage and use of the end-product. This material can be used to boost existing polyol inhibitor packages, especially during hot and humid summer months when scorch is a bigger issue.

ANTIOXIDANTS

VANOX antioxidants are best known for their superior performance in polyethylene, polypropylene, polyvinyl chloride, polyurethane, nylon, ABS, EPDM, EPR and other resin systems.

VANOX ZMTI is a nondiscoloring and nonstaining antioxidant, which is synergistic when used with other antioxidants.

VANOX 854 is used in polyethylene applications. It is an excellent processing stabilizer and a highly efficient antioxidant for long term heat aging applications.

VANOX® 898 Antioxidant is specifically intended for use in filled polypropylene formulations. It substantially diminishes the tendency of appearance grades of filled systems to discolor during processing. **VANOX 898** also controls melt flow and improves long-term heat aging characteristics.

VANOX 981PP antioxidant is a patent pending blend that greatly increases the color stability of thin-film polypropylene materials, providing a more consistent product over time. **VANOX 981PP** has the ability to increase the useful shelf life of a polypropylene product by delaying the part's failure longer than competitive materials. As a powder, it allows for easier compounding.

VANOX 1001 is a general purpose liquid antioxidant composed of a mixture of alkylated diphenylamines. It is recommended for use in a wide variety of resin systems where moderate staining and discoloration are not critical.

VANOX 1030A is a one-package system combining primary and secondary antioxidants, which provides good long-term heat aging characteristics in polyethylene and polypropylene compounds.

VANOX 1081 is a specially purified granular aromatic amine antioxidant for many nonstaining and non-discoloring applications in adhesives, high performance hot-melt urethanes, and components of urethane polyol inhibitor packages. **VANOX 1081** complies with 21 CFR 177.2600 and 175.105 (FDA).

POLYMER REINFORCING AGENTS

Wollastonite

VANSIL® Wollastonite is a high brightness calcium silicate mineral used as a filler and reinforcing agent in thermoplastic and thermoset resins. The high aspect ratio grades contribute to increased mechanical strength and dimensional stability.

	Median Particle Size	Oil Absorption, %	Aspect Ratio
<i>Low Aspect Ratio Grades</i>			
VANSIL® W-40 Wollastonite	6 µm	26	<5:1
VANSIL W-50	3 µm	30	<5:1
<i>High Aspect Ratio Grades</i>			
VANSIL WG	20 µm	40	15:1
VANSIL HR-2000	14 µm	44	14:1
VANSIL HR 1500	9 µm	44	14.1
VANSIL HR-325	2 µm	40	12:1

Kaolin Clay

Air-floated kaolin clays are excellent reinforcing agents for plastics, rubber and adhesives.

	Median Particle Size	Oil Absorption, %
BILT-PLATES[®] 156 Clay	0.2 µm	41
DIXIE CLAY[®] Clay	0.2 µm	41
McNAMEE[®] Clay	1.2 µm	35

Pyrophyllite

PYRAX[®] Pyrophyllite is an inexpensive reinforcing agent used in resins, including vinyl and polypropylene.

	Median Particle Size	Oil Absorption, %
PYRAX[®] B Pyrophyllite	10 µm	26
PYRAX WA	14 µm	24
PYRAX ABB	11 µm	24

POLYMER STABILIZERS

Phenolic Antioxidants

SONGNOX[®] 1010
SONGNOX 1024
SONGNOX 1035
SONGNOX 1076
SONGNOX 1077
SONGNOX 1098
SONGNOX 1135
SONGNOX 1290
SONGNOX 1520
SONGNOX 2450
SONGNOX 2490
SONGNOX 3114

Phosphite Antioxidants

SONGNOX 1680
SONGNOX 6180
SONGNOX 6260
SONGNOX 6280

Hydroquinone Antioxidants

SONGNOX 2500

Thioester Antioxidants

SONGNOX 4120
SONGNOX DLTP
SONGNOX DSTDP
SONGNOX DTDP

Antioxidant Blends

SONGNOX 11B
SONGNOX 21B
SONGNOX 311B
SONGNOX 321B
SONGNOX 417B

Hindered Amine Light Stabilizers (HALS)

SONGLIGHT[®] 1190
SONGLIGHT 2920
SONGLIGHT 6220
SONGLIGHT 7700
SONGLIGHT 7830
SONGLIGHT 9440

UV Absorbers

SONGSORB[®] 1000
SONGSORB 2340
SONGSORB 2908
SONGSORB 3200
SONGSORB 3260
SONGSORB 3270
SONGSORB 3280
SONGSORB 3290
SONGSORB 7120
SONGSORB 8100

Please contact us for further information on the Vanderbilt products described in this folder. Samples and Technical Data Sheets are available on request.

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