

APEX TECHNICAL DATA SHEET

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A PRODUCT BY





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Date of Publication:

02/08/2022

Identification

Product name: Eva-Last Apex co-extruded mineral-polymer composite decking. Product use: This product is primarily used for decking, facades, screens, cladding, etc. Website: www.eva-last.com

Manufacturers information:

Eva-Last Distributors Room 1203, 12/F Tower 3 33 Canton Road, Tsimshatsui Hong Kong, China Emergency Contact: +27 10 593 9220 Product information: +27 10 593 9220

Technology description

The Apex range was developed to provide a lightweight alternative to the Eva-Last cellulose-polymer range. The foamed mineral-polymer core has improved water and fire resistance behaviour. The innovative double layer polymer coat provides a unique texture and aesthetic characteristic as well as improved slip resistance.

Deck profile specification

| Description | Profile width (mm) | Depth (mm) | Typical length (mm) | Coverage (m/m²)* | Mass per meter (kg/m) |
|---|--------------------|------------|---------------------|------------------|-----------------------|
| | | | 5 700 | | |
| | 140 | 24 | 5 450 | 5.10 | 3.18 |
| Grooved deck board | | | 4 800 | _ | |
| | | | 5 700 | | |
| Available in a single sided and double sided boards. | 190 | 24 | 5 450 | 5.10 | 3.18 |
| | | | 4 800 | _ | |
| | | | 5 700 | | |
| Grooved deck board | 135 | 24 | 5 450 | 5.10 | 3.18 |
| Single sided | | | 4 800 | - | |
| | | | 5 700 | | |
| | 140 | 24 | 5 450 | 5.10 | 3.18 |
| Square edge deck board | | | 4 800 | | |
| | | | 5 700 | | |
| Available in a single sided and double sided boards. | 190 | 24 | 5 450 | 5.10 | 3.18 |
| | | - | 4 800 | _ | |

*Coverage includes a 5mm gap between boards.



Fascia and batten profile specifications

| Description | Profile width (mm) | Profile height (mm) | Typical length (mm) | Coverage (m/m²)* | Mass per meter (kg/m) |
|---------------------------|--------------------|---------------------|---------------------|------------------|-----------------------|
| Single sided fascia board | 150 | 12 | 2 200 | 6.5 | 1.3 |
| Single sided fascia board | 254 | 13 | 2 200 | 3.9 | 2.3 |
| Single sided fascia board | 297 | 16 | 2 200 | 3.4 | 3.0 |
| Single sided fascia board | 184 | 14 | 2 200 | 5.5 | 2.1 |
| Batten | 40 | 30 | 2 800 | N/A | 1.1 |

*Coverage includes a 5 mm gap between boards.

**Spans are based on boards in a vertical orientation.

Composition

| Substance | Approximate mass | CAS Number | Agency | Exposure limit | Comment |
|--|-------------------------|---------------|--|---|--------------------------------------|
| Core | | | | | |
| Polyvinyl chloride (PVC) | 50 % | 9002-86-2 | OSHA-PEL ACGIH-TLV | 5 mg/m³(respirable dust) 10 mg/m³(as nuisance dust) | Thermoplastic |
| Calcium Carbonate (CaCO ₃) | 40 % | 471-34-1 | OSHA-PEL NIOSH-REL | 5 mg/m³(respirable dust) 5 mg/m³(respirable dust) | N/A |
| Bamboo fibre | 3 - 10 % | N/A | OSHA-PEL OSHA-REL ACGIH-PEL ACGIH-REL | PEL-TWA 15 mg/m³ (total dusi PEL-TWA 5 mg/m³ (respirator TLV-TWA 3 mg/m³ (respirator TLV-STEL 10 mg/m³ (inhabita | y dust fraction) y dust fraction) |
| Foaming agent | | | | Information withheld | |
| Lubricating agent | | | | Information withheld | |
| Сар | | | | | |
| Acrylonitrile styrene acrylate (ASA) | 70 - 100 % | 26299-47-8 | N/A | Non-hazardous material | N/A |
| Additives | 1-30 % | | | Information withheld | |
| Additional additives | | | | | |
| Anti-mould agents, coupling agents, a | nti-UV agents, colour p | igments, etc. | Info | rmation withheld | |

NOTE

The primary composition of this product is PVC. This product contains a proprietary blend of components encapsulated within a polymer matrix. Trace impurities may be present but are in insignificant quantities to affect the purity of the product.

Bamboo is a species of the grass family which has distinct anatomical differences from that of timber. Therefore bamboo would be regulated as an organic dust in a category known as "Particulates Not Otherwise Regulated" (PNOR), or nuisance dust by OSHA. The ACG IH classifies dust or particulate in this category as "Particulates Not Otherwise Specified".



Typical profile specifications

| | Width (mm) | 140 | Mass per meter (kg/m) | 2.3 |
|---|----------------|------------|---|-----|
| ÷ | Thickness (mm) | 24 | Coverage (m/m²) | 6.9 |
| | Length (mm) | Vary | | |
| | Appearance | Planks are | e supplied in various colours and finis | hes |

Mechanical properties (ASTM D790)

| Mechanical properties (4 point load at 300 mm span) | Measured value | 2000 Hours weathering | Notes |
|--|----------------|-----------------------|-------------------------------------|
| Modulus of elasticity MOE (MPa) | 1554 | 1640 | |
| Modulus of rupture MOR (MPa) | 23.6 | 26.0 | |
| Creep recovery (%) | 89 | | |
| Unrecoverable deflection (mm) | 0.09 | | Test load of 302 N at a 300 mm span |

Weathering effects (ASTM D6109)

| Machanical properties (7 point load) | Conditions at 300 mm spans | | | | | |
|--------------------------------------|----------------------------|-------------|----------|------------------|-----------------|--|
| Mechanical properties (3 point load) | Control | Freeze-thaw | Moisture | High temperature | Low temperature | |
| Modulus of elasticity MOE (MPa) | 1433 | 1368 | 1644 | 1204 | 2 047 | |
| Modulus of rupture MOR (MPa) | 22.0 | 22.6 | 24.6 | 19.5 | 41.4 | |

Surface properties

| Finish: L | | | | |
|---------------------------|----------------|-------------------------|---|----------------------------|
| Physical properties | Measured value | Test standard | | Note |
| Scratch resistance (N) | 7.0 | FORD FLTM B0 162-01-20 | 09 | |
| Slip resistance | 65 | AS 4586 2013 Appendix A | - Wet pendulum | With grain Class P5 |
| Slip resistance | 67 | AS 4586 2013 Appendix A | - Wet pendulum | Across grain Class P5 |
| Slip resistance | 0.95 | AS 4586 2013 Appendix B | AS 4586 2013 Appendix B – Dry floor friction | |
| Slip resistance (°) | 34.0 | AS 4586-2013 Appendix A | AS 4586-2013 Appendix A – Wet-barefoot inclining platform | |
| Slip resistance (°) | 27.4 | AS 4586-2013 Appendix A | - Oil-wet inclining platform | Class R11 |
| Abrasion (mg/r) | 0.1 | ASTM D4060-14 | | CS-17/1000 g |
| Shore hardness | 82 | ISO 868-2003 | | HD |
| | | Ash | ΔE 1.096 | ASTM G154-7 |
| Artificial weathering (30 | JUU Hours) | Cumaru Garapa | ΔΕ 2.256 ΔΕ 1.721 | ASTM G154-7 ASTM G154-7 |

∆L ∆a

∆b ∆E Grey

Artificial weathering (2000 hours) Garapa

| | ΔE 1.096 | ASTM G154-7 |
|-------|----------|--------------|
| aru | ΔE 2.256 | ASTM G154-7 |
| ра | ∆E 1.721 | ASTM G154-7 |
| | 0.78 | ASTM G154-16 |
| | 0.11 | ASTM G154-16 |
| | 0.67 | ASTM G154-16 |
| | 1.04 | ASTM G154-16 |
| scale | 4 - 5 | ASTM G154-16 |
| | | |



Material properties

| · · · · · · · · · · · · · · · · · · · | | | | |
|---|-----------|-------------------------|----------------|--------------------|
| Physical properties | | Measured value | Test standard | Note |
| Linear thermal expansion coefficient (°C-1) | | 46.2 × 10 ⁻⁶ | ASTM D6341 | |
| Bulk density (kg/m³) | | 670 | | |
| Water absorption after 24 hours (| (%) | 1.12 | | Mass change |
| | thickness | 0.09 | | |
| Swelling after 24 hours (%) | width | 0.00 | | Dimensional change |
| | length | 0.00 | | |
| Water absorption after 28 days (? | %) | 0.6 | | Mass change |
| Fire reaction classification | | BfI-s ₁ | EN 13501-1 | |
| Critical flux (kW/m²) | | 11.0 | EN ISO 9239-1 | |
| Smoke (% x minutes) | | 254.0 | EN ISO 11925-1 | |
| Fs ≤ 150 mm | | Yes | EN ISO 11925-1 | |
| | | | | |

Fasteners

Appropriate fasteners must be employed depending on the expected worst-case loading conditions, the intended application and the conditions present. Particular attention should be paid to the substrate conditions available and the environmental conditions of the site. All applications should adhere to applicable regional standards. All timber profiles should be treated appropriately. Regular and proactive maintenance should be employed.

*Pull out resistance range is based on testing with fasteners in ACQ timber (density of 0.67 g/cm³) to Red oak timber (density of 0.72 g/cm³).



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Appendix A - ASA chemical compatibility table

| Test substance | 20 °C | 50 °C |
|---|-------|----------|
| Acetamide | + | + |
| Acetic acid (100 %) | - | - |
| Acetic acid (25%) | + | + |
| Acetic acid (50 %) | + | o |
| Acetone | - | |
| Acetophenone | • | |
| Acetylsalicylic acid (soln.) | + | + |
| Allylalcohol | • | |
| Allyl mustard oil Almond, bitter, oil of | + | - |
| Almond, oil of | + | + |
| Alum (soln.) | + | + |
| Aluminium chloride (soln.) | + | + |
| Aluminium sulphate (soln.) | + | + |
| Ammonia, aqueous (25%) | + | |
| Ammonium carbonate (soln.) | + | |
| Ammonium chloride (soln.) | + | + |
| Ammonium molybdate (soln.) | + | + |
| Ammonium nitrate (soln.) | + | + |
| Ammonium rhodanide (soln.) | + | + |
| Ammonium sulphate (soln.) | + | + |
| Amylacetate | • | • |
| Amylacetate | • | • |
| Amylalcohol | + | o |
| Amyl cinnamaldehyde | - | |
| Amyl mercaptan | • | |
| Aniline | - | |
| Anise, oil of | - | |
| Aniseed | + | + |
| Applejuice | + | + |
| Aqua regia | ٥ | |
| Atropine sulphate | + | + |
| Barium bromide (soln.) | + | + |
| Barium carbonate (soln.) | + | + |
| Barium chloride (soln.) | + | + |
| Beef tallow | + | + |
| Benzaldehyde | | |
| Benzene | | |
| Benzoic acid | + | + |
| Benzyl acetate | | <u> </u> |
| Benzyl acetate | | |
| Benzyl alcohol | | |
| Bismuth chloride (soln.) | + | + |
| Bismuth subnitrate (soln.) | + | + |
| Bone oil | + | + |
| Borax (soln.) | + | + |
| Boric acid (soln.) | + | + |
| Brake fluid (ATE) | | |
| Brandy | + | + |
| Bromine (liquid) | | |
| Butane | + | ÷ |
| Butter | + | + |
| Butyl acetate | | |
| Butyl acetate | - | |
| Butyric acid | • | |
| Coloring have the state | | |
| Cadmium bromide (soln.) | + | + |
| Caffeine (soln.) | + | + |
| Calcium bromide (soln.) Calcium chloride (soln.) | + | + |
| calcion chionde (soin.) | + | • |

| Test substance Gallic acid | 20 °C | 50 °C |
|--|-------|-------|
| Garlic (powder) | + | + |
| Gasoline (Premium unleaded) | • | Ŧ |
| Gasoline (Standard unleaded) | - | - |
| Ginger (ground) | 0 | 0 |
| Glucose (30 %) | + | + |
| Glycerine | + | + |
| Grapefruit juice | + | + |
| Gravy | + | + |
| Glavy | | + |
| Heating oil | + | + |
| Heptane | ٥ | 0 |
| Heptyl alcohol | + | 0 |
| Hexachlorobenzene | + | + |
| Hexane | - | |
| | 0 | 0 |
| Hexanediol Hexanol | + | + |
| | + | ٥ |
| Honey Horse radish | + | + |
| Household detergent (soln.) | + | + |
| Housenoid detergent (soin.) Hydrochloric acid (15%) | + | + |
| Hydrochloric acid (conc.) | + | 0 |
| Hydrofluoric acid (40 %) | 0 | 0 |
| Hydrogen peroxide (3 %) | + | + |
| Hydrogen peroxide (30 %) | + | + |
| Hydrogen sulphide | + | + |
| Hydroquinone (soln.) | + | 0 |
| Hydroxyacetone | 0 | 0 |
| Hydroxyacetone | • | |
| | - | |
| Ink, writing | + | + |
| lodine, tincture of | ٥ | - |
| Iron (II) chloride (solid) | + | + |
| Iron (II) chloride (soln.) | + | + |
| Iron (II) sulphate (solid) | + | + |
| Iron (III) chloride (soln.) | + | + |
| Iron ammonium sulphate | + | + |
| lron nitrate (soln.) | + | + |
| Isoamyl alcohol | ÷ | 0 |
| Isobutanol | 0 | - |
| Isooctane | ÷ | + |
| Isooctane | + | + |
| Isopropanol | + | - |
| Isopropyl acetate | - | - |
| | | |
| Lactic acid (10 %) | + | + |
| Lactic acid (80 %) | + | + |
| Lactose (soln.) | + | + |
| Lanolin + | + | + |
| Laurel (ground) | + | + |
| Lauryl alcohol | + | + |
| Lead acetate (soln.) | | |
| Lead nitrate (soln.) | + | + |
| | + | + |
| Lead stearate | + | + |
| Lead sulphate (soln.) | + | + |
| Lemon grass, oil of Lemon juice | + | -+ |
| Lemon juice | | |
| Lemon, oil of | 0 | 0 |
| Ligroin | + | + |
| Lime water | + | + |
| Linseed oil | ÷ | + |
| | | |

| Test substance | 20 °C | 50 °C |
|--|-------|-------|
| Potassium bromide (soln.) | + | + |
| Potassium chloride (soln.) | + | + |
| Potassium chromate (soln.) | + | + |
| Potassium dichromate (soln.) | + | 0 |
| Potassium ferricyanide | + | + |
| Potassium fluoride (soln.) | + | + |
| Potassium hydroxide (10 %) | + | + |
| Potassium hydroxide (50 %) | + | + |
| Potassium hydroxide (concentrated soln.) | + | 0 |
| Potassium iodate (soln.) | + | + |
| Potassium iodide (soln.) | + | + |
| Potassium nitrate (soln.) | + | + |
| Potassium permanganate (soln.) | + | 0 |
| Potassium persulfate (soln.) | + | + |
| Potassium sulphate (soln.) | + | + |
| Potassium sulphide (soln.) | + | + |
| Prontosil | + | + |
| Propane (liquid) | + | + |
| Propane (liquid) chloride | - | |
| Propane glycol | + | + |
| Propylene glycol methyl ether | - | |
| Propylene oxide | - | - |
| Pyridine | - | - |
| Pyrogaliol (soln.) | + | 0 |
| | | |
| Resorcin (soln.) | 0 | 0 |
| Rongalite (soln.) | + | + |
| Roses, oil of | ٥ | 0 |
| Rum | + | + |
| Rum essence | + | + |
| | | |
| Salicylic acid (soln.) | + | + |
| Salt, common (dry) | + | + |
| Sandalwood, oil of | - | |
| Sassafras oil | - | |
| Sea water | + | + |
| Sebacic acid dibutyl ester | - | |
| Silicone fluid | + | + |
| Silver nitrate (soln.) | + | + |
| Sodium acetate (soln.) | | |
| Sodium acetate (soln.) | + | + |
| | + | + |
| Sodium bicarbonate (soln.) | + | + |
| Sodium bisulfite (soln.) | + | + |
| Sodium borate (soln.) | + | + |
| Sodium bromate (soln.) | + | + |
| Sodium bromide (soln.) | + | + |
| Sodium carbonate (soln.) | + | + |
| Sodium chloride (dry) | + | + |
| Sodium chloride (soln.) | + | + |
| Sodium chromate (soln.) | + | + |
| Sodium fluoride (soln.) | + | + |
| Sodium hydrogen sulfite | + | + |
| Sodium hydroxide (50 %) | + | + |
| Sodium hypochlorite (soln. with 12 % Cl) | + | + |
| Sodium hypochlorite (soln., 12 % chlorine) | + | + |
| Sodium nitrate | + | + |
| Sodium nitrite | + | + |
| Sodium perborate (soln.) | + | + |
| Sodium phosphate (sec.) (soln.) | + | + |
| Sodium phosphate (tert.) (soln.) | + | + |
| Sodium sulphate (soln.) | + | + |
| | | |

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Appendix A - ASA chemical compatibility table

| Test substance | 20 °C | 50 °C |
|---|----------|--------|
| Calcium hypochlorite (solid) | + | + |
| Calcium hypochlorite (soln.) | + | + |
| Calcium oxide | + | + |
| Camphor | + | ÷ |
| Caraway seed (ground) | + | + |
| Carbazole | + | + |
| Carbon dioxide | + | + |
| | | |
| Carbon sulphide | | • |
| Cardamom | + | + |
| Camauba wax | + | + |
| Carrot juice | + | + |
| Castor oil | + | + |
| Cellosolve (methyl-, ethyl-, propyl- , butyl-) | - | - |
| Cesium bromide (soln.) | + | + |
| Cetyl alcohol | + | + |
| , Chamomile extract | + | + |
| Chlorinated lime | + | + |
| Chlorine (liquid or gaseous) | - | - |
| Chlorine water | o | 0 |
| Chloroacetic acid | o | - |
| Chlorobenzene | - | - |
| Chloroform | - | - |
| Chlorosulfonic acid | - | - |
| Chromic acid (soln.) | 0 | 0 |
| Chromosulfuric acid | 0 | 0 |
| Cider (apple) | | |
| Cinnamic aldehyde | - | - |
| Cinnamon (ground) | + | + |
| Cinammon (sticks) | + | + |
| Citric acid (soln.) | + | + |
| Citronella, oil of | - | • |
| Cloves | - | - |
| Cloves, oil of | - | - |
| Cocoa butter | + | + |
| Coconut oil Cod-liver oil | + | + + |
| Coffee (ground) | + | + |
| Coffee extract | + | + |
| Copper sulphate (soln.) | + | + |
| Corn oil | + | + |
| Cottonseed oil | + | + |
| Cresol (para) | 0 | - |
| Curry | + | + |
| Cyclohexane | + | 0 |
| Cyclohexanol | + | 0 |
| Cyclohexanone | - | - |
| | | |
| Dairy products | + | + |
| Dehydroacetic acid | + | + |
| Dekalin (R) | 0 | 0 |
| Diacetone alcohol | - | - |
| Dibutyl phthalate | - | - |
| Dichlorobenzene | - | - |
| Diesel oil | + | + |
| Diethanolamine | + | + |
| Diethyl ether | - | - |
| Diethyl hexyl phthalate | + | 0 |
| Diethyl ketone | + | + |
| Diethyl phthalate | - | - |
| Diethylene glycol | + | + |
| Dii | <u> </u> | |
| | 0 | 0 |
| Diisodecyl phthalate Dimethyl diglycol phthalate | <u>^</u> | ~ |
| Diisoaecyi pithalate Dimethyl diglycol phthalate Dimethyl phthalate | 0 | 0 - |

| Test substance | 20 °C | 50 °C |
|---|---|--|
| Mace (ground) | ÷ | 0 |
| Magnesium bromide | ÷ | + |
| Magnesium carbonate | + | + |
| Magnesium chloride (soln.) | + | + |
| Magnesium sulphate (soln.) | + | + |
| Maize oil | ÷ | + |
| Malic acid (10 %) | ÷ | + |
| Mandarin orange, oil of | 0 | 0 |
| Margarine | + | + |
| - | | |
| Marjoram (ground) | + | + |
| Marmelade | + | + |
| Mayonnaise | ÷ | + |
| Menthol (10 % in ethanol) | ٥ | ٥ |
| Mercury | + | + |
| Mercury chloride (soln.) | + | + |
| Mesityl oxide | - | - |
| Methanol | 0 | - |
| Methyl acetate Methyl butanol | - | - |
| Methyl chloride | + | - |
| Methyl cyclohexane | + | + |
| Methyl ethyl ketone | - | - |
| Methyl isobutyl ketone | - | - |
| Methyl isopropyl ketone | - | - |
| Methyl propyl ketone | - | - |
| Methyl salicylate | | - |
| Methylene chloride Methylene chlorobromide | - | - |
| Milk | + | + |
| Milk powder | + | + |
| Milk powder (moist) | + | + |
| Monoamyl phthalate | - | - |
| Motor oil (automotive) | + | + |
| Mustard | + | + |
| n-Butanol | + | 0 |
| n-Nonanol | + | + |
| n-Octanol | + | + |
| n-Propanol | + | 0 |
| Naphthalene (solid) | + | - |
| Naphthalene (soln. in ethanol) | 0 | - |
| Naphthol (beta) (soln. in ethanol) | 0 + | - + |
| Nickel sulphate (soln.) Nitric acid (30 %) | + | + |
| Nitric acid (conc.) | - | - |
| Nitrobenzene | - | - |
| Nutmeg, dark (ground) | | |
| | 0 | 0 |
| | 0 + | 0 |
| Nutmeg, light (ground) | - | - |
| Nutmeg, light (ground) Nutmeg, oil of | + | - |
| Nutmeg, light (ground) Nutmeg, oil of | + | 0 |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) | + 0 + | 0 - 0 |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) Orange juice | + + + + + + + + | 0 - 0 + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) Orange juice Orange, oil of | + + + + + 0 | 0 - + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) Orange juice Orange, oil of Oxalic acid (soln.) | + + + + + + + + | 0 - 0 + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol | + + + + + 0 | 0 - + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onan (powder) Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<<,, ppm) | + + + + + | 0 - + + + + 0 + |
| Nutmeg, light (ground) Nutmeg, oil of Olive oil Onian (powder) Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol Ozone (<0,5 ppm) Palamoll 644 und 646 (polyesters based on | + + + + + | 0 - + + + + 0 + |
| Nutmeg, light (ground) Nutmeg, oil of Olive oil Olive oil Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol Ozone (<o,5 ppm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF)</o,5> | + 0 + + + 0 + + + 0 + + 0 + + + 0 + + + 0 + + + 0 + + + 0 + + + 0 + + + + 0 + + + + 0 + + + + 0 + + + + + 0 + + + + + 0 + | 0 - + + + + 0 + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<0,5 ppm) Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm oil Palmitic acid | + 0 + + + + 0 + | 0 - + + + + - + - |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Onion (powder) Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<o, 5="" pm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palam oil Palmitic acid Paprika (ground)</o,> | + 0 + + + + 0 + + 0 + + + + + + + + + + | 0 - + + + + + + - + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Olive oil Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<o, 5="" pm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm tic acid Paprika (ground) Paraffin oil</o,> | + 0 + + + + + + + + + + + + + + + + + + | 0 - + + + + + + + + + + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Oleic acid Olive oil Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol Ozone (<o, 5="" ppm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm oil Palmitic acid Paprika (ground) Paraffin oil Peanut oil</o,> | + - + + + + + + + + + + + + + + + + | 0 - + + + + - - + + + + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Oleic acid Olive oil Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol Ozone (<>,5 ppm) Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm oil Palmitic acid Paprika (ground) Paraffin oil Peanut oil Peanut oil | + | 0 - + + + + + + + - - + + + + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Oleic acid Olive oil Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<0,5 ppm) Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm oil Palmitic acid Paprika (ground) Parafin oil Peanut oil Peanut oil Peanut oil Peanut oil Peanut oil Peanut oil Peanut oil Peanut oil Peanut oil | + | 0 - - + + + + + + + + + + + + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Oleic acid Olive oil Orange juice Orange, oil of Oxalic acid (soln.) Oxymethylfurfurol Ozone (<o, 5="" ppm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palamoll Palmitic acid Paprika (ground) Paraffin oil Peanut oil</o,> | + | 0 - + + + + + + + - - + + + + + + + + |
| Nutmeg, light (ground) Nutmeg, oil of Oleic acid Oleic acid Olive oil Orange juice Orange, oil of Oralic acid (soln.) Oxymethylfurfurol Ozone (<o,5 ppm)<br="">Palamoll 644 und 646 (polyesters based on adipic acid, BASF) Palm oil Palmitic acid Paprika (ground) Paraffin oil Peanut oil</o,5> | + | 0 - - + + + + + - + + + + + + + + + + + |

| Sodium sulphide (soln.) + + Sodium thiosulfate (soln.) + + Sodium thiosulfate (soln.) + + Sogoil + + Sperm oil + + Stearic acid + + Strontium bromide + + Strychnine + + Sulphur bexafluoride + + Sulphur hexafluoride + + Sulfuric acid (so %) + + Tartaric acid (soln.) + + Tartaric acid (soln.) + + Textanlydrofuran - - Tetrahydrofurfurol - - Tetrahydrofurfurol - - Tartaric acid (soln.) + + Tartaric acid (soln.) - - Tetrahydrofurfurol - - Tetrahydrofurfurol - - Tinony | Test substance | 20 °C | 50 °C |
|--|------------------------------------|-------|----------|
| Sodium sulfite (soln.) + + Sog oil + + Sog oil + + Strontium bromide + + Strontium bromide + + Strontium bromide + + Sulphur + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (10 %) + + Sulfuric acid (20 %) - - Tanic acid - | Sodium sulphide (soln.) | + | _ |
| Say oil + + Sperm oil + + Stearic acid + + Strontium bromide + + Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (30 %) + + Sulfuric acid (38 %, battery acid) + + Sulfuric acid (conc.) - - Tancia caid + + Tartaric acid (conc.) - - Tancia caid + + Texaliorenthane - - Tetrahydrofuran - - Tetrahydrofurfurol - - Thiophene - - Thiophene - - Tin (IV) chloride (soln.) + + Tarasformer oil + 0 Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - <t< td=""><td>Sodium sulfite (soln.)</td><td>+</td><td>+</td></t<> | Sodium sulfite (soln.) | + | + |
| Say oil + + Sperm oil + + Stearic acid + + Strontium bromide + + Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (30 %) + + Sulfuric acid (38 %, battery acid) + + Sulfuric acid (conc.) - - Tancia caid + + Tartaric acid (conc.) - - Tancia caid + + Texaliorenthane - - Tetrahydrofuran - - Tetrahydrofurfurol - - Thiophene - - Thiophene - - Tin (IV) chloride (soln.) + + Tarasformer oil + 0 Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - <t< td=""><td>Sodium thiosulfate (soln.)</td><td>+</td><td>+</td></t<> | Sodium thiosulfate (soln.) | + | + |
| Sperm oil + + Stearic acid + + Strontium bromide + + Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (30 %) + + Sulfuric acid (20 %) + + Tartaric acid + + Tartaric acid (soln.) + + Tea leaves (moist) + + Tetrahydrofuran - - Tetrahydrofurfurol - - Tetrahydrofurfurol - - Thing(I) (chloride (soln.) - - Tin (IV) chloride (soln.) - - Tin (IV) chloride (soln.) - - Tin (IV) chloride (soln.) - - <td></td> <td></td> <td></td> | | | |
| Stearic acid + + Strontium bromide + + Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (10 %) + + Sulfuric acid (28 %, battery acid) + + Sulfuric acid (20 %) + + Sulfuric acid (20 m.) + + Tannic acid + + Tataric acid (soln.) + + Tea, instant + + Tetrachloromethane - - Tetrahydrofuran - - Tetrahydrofuran - - Tetrahydrofuran - - Tetrahydrofuran - - Thionyl chloride (soln.) + + Tin (IV) choride (soln.) + + Transformer oil | | | |
| Strontium bromide + + Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (10 %) + + Sulfuric acid (28 %, battery acid) + + Sulfuric acid (26 %) + + Sulfuric acid (conc.) - - Tannic acid + + Tataric acid (soln.) + + Teal, instant + + Tetrachloromethane - - Tetrahydrofuran - - Tetrahydrofuforol - - Tetrahydrofuforol - - Thiopylene - - Thymol - - Tin (IV) chloride (soln.) + + Tagacanth (gum tragacanth) + + Tragacanth (gum tragacanth) + + Trichlorophenel - - Trichlorophenel - - Trichlorophenel | | | |
| Strychnine + + Sugar (soln, 30 %) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (20 %) + + Sulfuric acid (38 %, battery acid) + + Sulfuric acid (20 %) + + Sulfuric acid (20 %) + + Sulfuric acid (conc.) - - Tannic acid + + Tataric acid (soln.) + + Tetachlorethane - - Tetrachloremethane - - Thiophene - - Thiophene - - Tri(II) chloride (soln.) + + Tin (IV) chloride (soln.) - - Totalumettrachloride - - Towato juice | | | |
| Sugar (soln, 30%) + + Sulphur + + Sulphur hexafluoride + + Sulfuric acid (10%) + + Sulfuric acid (30%, battery acid) + + Sulfuric acid (50%) + + Sulfuric acid (conc.) - - Tannic acid + + Tataric acid (soln.) + + Teataric acid (soln.) + + Tetachorethane - - Tetrahydrofuran - - Tetrahydrofurfurol - - Thiophene - - Tin (I) Choloride (soln.) + + Tagacanth (gum tragacanth) + + Trichlorobylene - - Trichlorobylene - - Trichlorobylene - - Trichlorobylene - - Tin (I) Choride (soln.) + + Tragacanth (gum tragacanth) + + Trichlorobylene - - Trichlor | | | |
| Sulphur + + Sulphur hexafluoride + + Sulfuric acid (30 %) + + Sulfuric acid (30 %) + + Sulfuric acid (30 %) + + Sulfuric acid (conc.) - - Tannic acid + + Tartaric acid (soln.) + + Teal seves (moist) + + Tetas (intro (acid (soln.)) + + Tetrahydrofuran - - Tetrahydrofuran - - Tetrahydrofurforol - - Tetrahydrofurforol - - Thionyle choride - - Thionyle choride (soln.) + + Tin (1V) chloride (soln.) - - Tin (IV) chloride (soln.) - - Tinchionobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichor | | + | + |
| Sulphur hexafluoride + Sulfuric acid (30 %) + Sulfuric acid (30 %) + Sulfuric acid (30 %) + Sulfuric acid (conc.) - Tannic acid + Tartaric acid (soln.) + Teap instant + Tetrachlorethane - Tetrachlorethane - Tetradydrofuran - Tetradydrofurol - Thionyl chloride (soln.) + Tin (II) chloride (soln.) + Tin (II) chloride (soln.) + Tin (II) chloride (soln.) - Titanium tetrachloride - Tobuene - Trichlorobenzene - | Sugar (soln, 30 %) | + | + |
| Sulfuric acid (30 %) + + Sulfuric acid (38 %, battery acid) + + Sulfuric acid (conc.) - - Tannic acid + + Tannic acid (soln.) + + Teal eaves (moist) + + Teta-kolorethane - - Tetrachlorethane - - Tetrachloromethane - - Tetralydrofuran - - Tetralydrofurol - - Tinoll choride (soln.) + + Tinoll (boride (soln.) + + Transformer oil + - Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichlorophenol < | Sulphur | + | + |
| Sulfuric acid (38 %, battery acid) + + Sulfuric acid (50 %) + + Sulfuric acid (conc.) - - Tannic acid + + Tataric acid (soln.) + + Teal eaves (moist) + + Teal, instant + + Tetachloromethane - - Tetrachloromethane - - Tetrahydrofuran - - Tetrahydrofuran - - Tetrahydrofurfurol - - Tetrahydrofurfurol - - Tinic (D) chloride (soln.) - - Tinic (IV) chloride (soln.) - - Tinic (IV) chloride (soln.) - - Trichlorosenzene - - <t< td=""><td>Sulphur hexafluoride</td><td>+</td><td>+</td></t<> | Sulphur hexafluoride | + | + |
| Sulfuric acid (50 %) + + Sulfuric acid (conc.) - Tannic acid + + Tataric acid (soln.) + + Teal eaves (moist) + + Teal, instant + + Tetrachloromethane - - Tetrachloromethane - - Tetrahydrofuran - - Tetrahydrofurfurol - - Tetrahydrofurfurol - - Thionyl chloride - - Thionyl chloride (soln.) + + Tin (IV) chloride (soln.) - - Tin (IV) chloride (soln.) - - Tin (IV) chloride (soln.) - - Tin (IV) chloride (soln.) + + Tragacanth (gum tragacanth) + + Transformer oil + o Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichlorobenzene - - Trichloro | Sulfuric acid (10 %) | + | + |
| Sulfuric acid (conc.) - Tannic acid + Tartaric acid (soln.) + Teal leaves (moist) + Teal leaves (moist) + Teal leaves (moist) + Tetrahydrofuran - Tetrahydrofuran - Tetrahydrofuran - Tetrahydrofurdi - Tetrahydrofurdi - Thiophene - Thiophene - Thiophene - Tin (II) chloride (soln.) + Tin (IV) chloride (soln.) - Titanium tetrachlored - Townato juice + Tragacanth (gum tragacanth) + Trichlorobenzene - Trichlorobenzene - Trichlorobenzene - Trichlorophenol | Sulfuric acid (38 %, battery acid) | + | + |
| Sulfuric acid (conc.) - Tannic acid + Tartaric acid (soln.) + Teal leaves (moist) + Teal leaves (moist) + Teal leaves (moist) + Tetrahydrofuran - Tetrahydrofuran - Tetrahydrofuran - Tetrahydrofurdi - Tetrahydrofurdi - Thiophene - Thiophene - Thiophene - Tin (II) chloride (soln.) + Tin (IV) chloride (soln.) - Titanium tetrachlored - Townato juice + Tragacanth (gum tragacanth) + Trichlorobenzene - Trichlorobenzene - Trichlorobenzene - Trichlorophenol | Sulfuric acid (co %) | + | + |
| Tannic acid + + Tartaric acid (soln.) + + Teal eaves (moist) + + Tea, instant + + Tetrachlorethane - - Tetrachlorethane - - Tetrachloromethane - - Tichonyl chloride (soln.) + + Tingacanth (gum tragacanth) + + Transformer oil + 0 Trichlorobenzene - - Trichlorophenol - | | | |
| Tartaric acid (soln.) + + Tea leaves (moist) + + Tea, instant + + Tetrachlorethane - - Tetrachloromethane - - Tetrahydrofurun - - Thionyl chloride - - Thiophene - - Thiphene - - Tin (IV) chloride (soln.) + + Titanium tetrachloride - - Tomato juice + + Tragacanth (gum tragacanth) + + Trasformer oil + - Trichlorobenzene - - Trichlorobenzene - - Trichlorophenol - - Trichlorophenol + + Triptophane (d or I) + + Tryptophane (d or I) + | | | |
| Tea leaves (moist) + + Ter, instant + + Tetrachlorethane - - Tetrachloromethane - - Tetrachydrofuran - - Tetrahydrofurforol - - Tetrahydrofurforol - - Tetrahydrofurforol - - Thiophene - - Thiophene - - Tin (I) chloride (soln.) + + Tin (I) chloride (soln.) - - Titanium tetrachloride - - Tomato juice + + Tragacanth (gum tragacanth) + + Trichlorobenzene - - Trichlorobenzene - - Trichlorophenol - - Trichorobenzene - - Trichlorophenol + + Trichorophylene - - Trichlorophenol - - Trichlorophylene - - Triethylane (d or I) + | Tannic acid | + | + |
| Tea, instant + + Tetrachlorethane - Tetrachlorothane - Tetrachlorothane - Tetralydroforfurol - Tetralydroforfurol - Tetralydroforfurol - Tetralydroforfurol - Tetralydroforfurol - Tetralydroforfurol - Thiophene - Thymal - Tin (II) chloride (soln.) + Tin (V) chloride (soln.) - Titanium tetrachloride - Tooluene - Tomato juice + Tragacanth (gum tragacanth) + + Trichorobenzene Trichlorobethane - Trichlorobethane - Trichlorophenol - Triethylene glycol <td></td> <td></td> <td></td> | | | |
| Tetrachlorethane | | | |
| Tetrahlydrofuran . Tetrahlydrofuran . Tetrahlydrofuran . Tetrahlydrofuran . Tetrahlydrofuran . Tetrahlin (R) . Thionyl chloride . Thiophene . Thiphene . Tin (IV) chloride (soln.) . Titanium tetrachloride . Toduene . Tomato juice + Transformer oil + Transformer oil - Trichlorobenzene . Trichlorobenzene . Trichlorobylene . Trichlorophate . Trichlo | | + | + |
| Tetrahydrofurol . Tetrahydrofurfol . Tetrahydrofurfol . Tetrain (R) . Thionyl chloride . Thionyl chloride . Thionyl chloride . Thiophene . Tin (IV) chloride (soln.) + Tin (IV) chloride (soln.) . Titanium tetrachloride . Toluene . Toduene . Tonato juice + Tragacanth (gum tragacanth) + + Trichlorobenzene Trichlorobenzene . Trichlorobenzene . Trichlorophenol . Trichlorophenol . Trichlorophenol . Triethaylan (R) + Trighycol acetate . Trypaflavin (R) + Trypaflavin (R) + Turgentine o Tyrpaflavin (R) + Urgentine o Typaflavin (R) + Turgentine substitute . | | | <u>.</u> |
| Tetralin (R) . Tetralin (R) . Thiophene . Thymal . Tin (II) chloride (soln.) + Tin (II) chloride (soln.) + Tin (IV) chloride (soln.) . Titanium tetrachloride . Toluene . Tomato juice + Tragacanth (gum tragacanth) + + Tragacanth (gum tragacanth) + + Trichlorobenzene . Trichlorobethane . | | | |
| Tetralin (R) . Thiopyl chloride . Thiophene . Tin (II) chloride (soln.) + Tin (IV) chloride (soln.) . Titanium tetrachloride . Toluene . Tomato juice + Tragacanth (gum tragacanth) + + Tragacanth (gum tragacanth) + + Trichlorobenzene . Trichlorobethane . <td></td> <td></td> <td></td> | | | |
| Thiophene - Thymol - Tin (II) chloride (soln.) + Tin (IV) chloride (soln.) - Titanium tetrachloride - Tomato juice + Tagacanth (gum tragacanth) + + - Transformer oil + - - Trichlorobenzene - - - Trichlorophenol - Tricesyl phosphate - Tricesyl phosphate - Trigylogi acetate - - - Trypophane (d or I) + Tryptophane (d or I) + Tryptophane (d or I) + Turgentine o O - Tricesyl phosphate - Trighycal acetate - Tryptophane (d or I) + Turgentine substitute + Undecanol + Undecanol + Verbena oil - Vinegar + Water colors + | | - | |
| Thymol - Tin (IV) chloride (soln.) + Tin (IV) chloride (soln.) - Titanium tetrachloride - Toluene - Toluene - Tonato juice + Tragacanth (gum tragacanth) + Transformer oil + Trichlorobenzene - Trichlorobenzene - Trichlorobenzene - Trichlorophenol - Trichlorophanel + Trichsy phate - Trichsy phate - Trighycol acetate - Trypaflavin (R) + Trypaflavin (R) + Trypaflavin (R) + Turgentine o Turgentine o Tyrpaflavin (R) + Uropentine substitute + Urpentine substitute + Urotorpin (soln.) + Verbena oil - Vinegar + Water colors + Water glass + Water gla | Thionyl chloride | | · . |
| Tin (II) chloride (soln.) + + Tin (IV) chloride (soln.) - Titanium tetrachloride - Toluene - Tomato juice + Tragacanth (gum tragacanth) + Transformer oil + Trichlorobenzene - Trichlorobethane - Trichlorobethane - Trichlorobethane - Trichlorobethane - Trichlorobethane - Trichlorobethane - Tricheryl phosphate - Triethylene glycol + Trighycol acetate - Trypaflavin (R) + Turpentine o O Turpentine O O Turpentine substitute + Undecanol + Urotropin (soln.) + Varieral drops + | | | |
| Tin (IV) chloride (soln.) - Titanium tetrachloride - Toluene - Tomato juice + Tragacanth (gum tragacanth) + Transformer oil + Trichlorobenzene - Trichlorobenzene - Trichlorobendene - Trichlorobenzene - Trichlorobendene - Trichlorobendene - Trichlorobendene - Trichlorobendene - Trichlorobendene - Trichlorobendene - Trichlorophenol - Trichlorophenol - Trichlorophenol - Trichlorophenol - Trichlorophenol - Trichlorophenol + Trigilycol acetate - Trypafavin (R) + Typophane (d or I) + Turpentine o O Turpentine Urdecanol + Urdecanol + Urdecanol - | | - | |
| Titanium tetrachloride.Toluene.Toruato juice+Tragacanth (gum tragacanth)+Transformer oil+00Trichlorobenzene.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Trichlorophenol.Triglycol acetate.Trypaflavin (R)+Trypaflavin (R)+TurpentineoOTurpentine substitute+Undecanol+Undecanol+Valerian drops+Valerian drops+Valerian drops+Water colors+Water glass+Water glass+Vinegar+Tickleached)++-Tinchoroide (soln.)+Zinc chroide (soln.)+Zinc nitrate+Zinc contrante+Xinc contrante | | + | + |
| Toluene - Tomato juice + Tragacanth (gum tragacanth) + + + Transformer oil + - - Trichlorobenzene - Triptophane - Tryptophane (d or I) + Typosine (d or I) + Undecano | | | <u>.</u> |
| Tomato juice++Tragacanth (gum tragacanth)++Tragacanth (gum tragacanth)++Tragacanth (gum tragacanth)++TrichlorobenzeneTrichlorobethaneTrichloroethaneTrichlorophenolTricherogi phosphateTricherogi phosphateTricherogi phosphateTricherogi phosphateTriethanolamine++Triglycol acetateTrippaphane (d or I)++TurpentineooTurpentineooTurpentineooTurpentine substitute+oTyrosine (d or I)++Undecanol++Urotropin (soln.)++Valerian drops++Valerian drops++Water++Water colors++Water colors++Water colors++Wax (bleached)++Wax (bleached)++Wax (bleached)++Zinc chromide++Zinc chromide++Zinc chromide++Zinc chromet++Zinc chromet++Zinc chromet++Zinc chromet++Zinc ch | | | |
| Tragacanth (gum tragacanth)++Transformer oil+oTrichlorobenzene-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Trichlorobethane-Tricethylene glycol+Trighycol acetate-Trypaflavin (R)+TurpentineoTurpentineoTurpentineoTurpentine substitute+Undecanol+Urotropin (soln.)+Valerian drops+Varbena oil-Vinegar+Water+Water colors+Water glass+Wax (bleached)+Wax (bleached)+Unc colrobate+Zinc choronide+Zinc choronide+Zinc choronide+Xilen circhia+Zinc choronide+Xinchloride (soln.)+Xinchloride (soln.)+Xinchloride (soln.)+Xinchloride (soln.)+Xinchloride (soln.)+Xinchloride (soln.)+Xinchloride (soln.) | | + | + |
| Trichlorobenzene.Trichlorobarzene.Trichlorobarzene.Trichlorobyhenol.Tricresyl phosphate.Triethanolamine++Trighycol acetateTrypaflavin (R)+Tryptophane (d or I)++Tripyptophane (d or I)++TurpentineoOTurpentine substitute+Undecanol+++Undecanol+++Valerian drops+Valerian drops+++Water+Water colors+++Water glass+++Zinc carbonate+++Zinc carbonate+++Zinc chronide (soln.)+++Zinc chronide (soln.)+< | | + | + |
| Trichloroethylene.Trichloroethylene.Trichlorophenol.Tricresyl phosphate.Tricresyl phosphate.Triethanolamine++Trighycol acetateTrypaflavin (R)+++Tryptophane (d or I)+++Tryptophane (d or I)+++Undecanol+Undecanol+++Urotropin (soln.)+Valerian drops+Valerian drops+Vater colors+Water colors+Water glass+Xylene-Zinc konnide+Zinc carbonate+Zinc carbonate+Xinc carbonate+++Zinc chronide (soln.)+++Zinc chronate+++Zinc chronate+++ <td></td> <td>+</td> <td>0</td> | | + | 0 |
| Trichloroethylene.Trichlorophenol.Tricresyl phosphate.Triethanolamine+Triethylene glycol+Triglycol acetate.Trypaflavin (R)+Trypaflavin (R)+Trypaflavin (R)+Trypaflavin (R)+Trypaflavin (R)+Trypaflavin (R)+Trypaflavin (R)+TurpentineoOOTurpentineoOTurpentineUrgentine substitute+Undecanol+Urderanol+Urotropin (soln.)+Valerian drops+Verbena oil-Vinegar+Water colors+Water colors+Water glass+Vinegar+Xylene-Zinc bromide+Zinc carbonate+Zinc chroinde (soln.)+Xinc chroinde (soln.) <td< td=""><td></td><td></td><td></td></td<> | | | |
| Trichlorophenol-Tricresyl phosphate-Triethanolamine+++Triethylene glycol+++Trighycol acetate-Trypaflavin (R)+++Tryptophane (d or I)+++Turpentineoorurpentine substitute++Undecanol+++Urdecanol+++Urderan drops+++Valerian drops+++Water colors+++Water glass+++Xylene-Zinc bromide+++Zinc carbonate+++Zinc chonate+++Zinc cintment+ | | | |
| Tricresyl phosphate.Triethanolamine+Triethanolamine+Triethanolamine+Triglycol acetate-Trypaflavin (R)+Trypophane (d or I)+Trypophane (d or I)++TurpentineooTurpentine substitute+0oTurpentine substitute+0-Undecanol+++Urac (soln.)+Urderian drops+++Valerian drops+++Water colors+Water colors+Water glass+++Zinc bromide+Zinc carbonate+++Zinc chloride (soln.)+++Zinc chloride (soln.)+++Zinc cintment+++Zinc cintment+ | | | |
| Triethanolamine + + Trighycol acetate - - Trypallowin (R) + + Tryptophane (d or I) + + Tryptophane (d or I) + + Turpentine o o Turpentine substitute + o Tyrosine (d or I) + + Undecanol + + Undecanol + + Urotropin (soln.) + + Valerian drops + + Valerian drops + + Valerian drops + + Water colors + + Water colors + + Water glass + + Water glass + + Xylene - - Zinc bromide + + Zinc chloride (soln.) + + Zinc chloride (soln.) + + Zinc cintment + + | | | |
| Triglycol acetate - Trypaflavin (R) + Tryptophane (d or I) + Tryptophane (d or I) + Turpentine substitute + 0 Tyrosine (d or I) + + Undecanol + Undecanol + Urae (soln.) + Valerian drops + Valerian drops + Vinegar + Water + Water colors + Water glass + Wax (bleached) + Xylene - Zinc bromide + Zin carbonate + 4 + Zinc chloride (soln.) + 4 + Zinc ointment + | | + | + |
| Trypaflavin (R) + + Tryptophane (d or I) + + Turpentine o o Turpentine substitute + o Tyrosine (d or I) + + Undecanol + + Undecanol + + Urade (soln.) + + Valerian drops + + Water colors + + Water colors + + Water colors + + Wax (bleached) + + Wite oil + + Xylene - - Zinc bromide + + Zinc chloride (soln.) + + Zinc chloride (soln.) + + Zinc chloride (soln.) | | + | + |
| Tryptophane (d or I) + + Turpentine o o Turpentine substitute + o Tyrosine (d or I) + + Undecanol + + Undecanol + + Urac (soln.) + + Urotropin (soln.) + + Valerian drops + + Valerian drops + + Valerian drops + + Water colors + + Water colors + + Water colors + + Water glass + + Water glass + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc ointment + + | | | |
| Turpentine o o Turpentine substitute + o Tyrosine (d or I) + + Undecanol + + Undecanol + + Urea (soln.) + + Urotropin (soln.) + + Valerian drops + + Valerian drops + + Valerian drops + + Valerian drops + + Water + + Water colors + + Water glass + + Water glass + + Zinc bromide + + Zinc carbonate + + Zinc choride (soln.) + + Zinc nitrate + + | | | |
| Turpentine substitute + o Tyrosine (d or I) + + Undecanol + + Urea (soln.) + + Urotropin (soln.) + + Valerian drops + + Valerian drops + + Valerian drops + + Valerian drops + + Water colors + + Water colors + + Water colors + + Water glass + + Zinc (bleached) + + Xylene - - Zinc carbonate + + Zinc chroinde (soln.) + + Zinc nitrate + + Zinc ointment + + | | | |
| Tyrosine (d or I) + + Undecanol + + Urea (soln.) + + Urotropin (soln.) + + Valerian drops + + Valerian drops + + Valerian drops + + Water + + Water colors + + Water glass + + Water glass + + Water glass + + Zinc bromide + + Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc ointment + + | | | |
| Urea (soln.) + + Urotropin (soln.) + + Valerian drops + + Verbena oil - - Vinegar + + Water colors + + Zinc (bleached) + + Zinc corbonate + + Zinc choinde (soln.) + + <tr tr=""> <tr tbody=""></tr></tr> | | | |
| | | | |
| | | | |
| Urea (soln.) + + Urotropin (soln.) + + Valerian drops + + Verbena oil - - Vinegar + + Water colors + + Zinc (bleached) + + Zinc corbonate + + Zinc choinde (soln.) + + <tr tr=""> <tr tbody=""></tr></tr> | | | |
| | | | |
| | | | |
| Urotropin (soln.) + + + Valerian drops + + Valerian drops + + Varbena oil - Vinggar + + Water + + Water + + Water colors + + + Water colors + + + Water glass + + Water glass + + Wax (bleached) + + + White oil + + + Xylene - Zinc bromide + + + Zinc carbonate + + Zinc choinde (soln.) + + Zinc nitrate + + Zinc ointment + + | | + | + |
| Valerian drops + + + Verbena oil - Vinegar + + Water + + Water colors + + Water glass + + Wax (bleached) + + Wax (bleached) + + Xylene - Xylene - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc nitrate + + | | | |
| Verbena oil - Vinegar + + Water + + Water colors + + Water colors + + Water glass + + Water glass + + Wax (bleached) + + White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + | Urotropin (soln.) | + | + |
| Verbena oil - Vinegar + + Water + + Water colors + + Water colors + + Water glass + + Water glass + + Wax (bleached) + + White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + | Valerian drops | | |
| Vinegar + + + Water + + Water colors + + Water colors + + Water glass + + Water glass + + Wax (bleached) + + + White oil + + + Xylene Zinc bromide + + Zinc colonate + + Zinc colonate + + Zinc nitrate + + Zinc nitrate + + | | | |
| Water colors + + Water glass + + Wax (bleached) + + White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + | | + | + |
| Water colors + + Water glass + + Wax (bleached) + + White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + | Water | + | + |
| Wax (bleached) + + White oil + + Xylene - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | | + | + |
| White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | Water glass | + | + |
| White oil + + Xylene - - Zinc bromide + + Zinc carbonate + + Zinc chlonide (soln.) + + Zinc nitrate + + Zinc ointment + + | Wax (bleached) | + | + |
| Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | White oil | + | + |
| Zinc bromide + + Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | | | |
| Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | Xylene | • | |
| Zinc carbonate + + Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | Zinc bromide | + | |
| Zinc chloride (soln.) + + Zinc nitrate + + Zinc ointment + + | | | |
| Zinc nitrate + + Zinc ointment + + | | | |
| | | | |
| Zincoxide + + | Zinc ointment | + | + |
| | Zincoxide | + | + |

Apex[®]

Appendix A - ASA chemical compatibility table

| Test substance | 20 °C | 50 °C |
|---|-------|-------|
| Dinonyl phthalate | 0 | 0 |
| Dioxane (1,4 dioxane) | - | - |
| Diphenyl ether | - | - |
| Diphenylamine | - | |
| Ethanol (40 %) | + | + |
| Ethanol (95 %) | + | 0 |
| Ether (Diethyl ether) | - | - |
| Ethyl acetate | - | - |
| Ethyl benzene | - | - |
| Ethyl benzoate | - | - |
| Ethyl chloride | - | - |
| Ethylene chloride | - | - |
| Ethylene glycol | + | + |
| Eucalyptus, oil of | 0 | 0 |
| Fertilizer salts | + | + |
| Formaldehyde (30 %) | + | 0 |
| Formic acid (40 %) | + | 0 |
| Formic acid (85 %) | 0 | 0 |
| Frigen/Freon 11 (Monofluoro- trichloromethane) | 0 | 0 |
| Frigen/Freon 113 (Trifluoro-trichloroethane) | 0 | 0 |
| Frigen/Freon 114 (Tetrafluoro-dichloroethane) | o | 0 |
| Frigen/Freon 12 (Difluoro-dichloromethane) | 0 | 0 |
| Frigen/Freon 21 (Monofluoro- dichloromethane) | - | - |
| Frigen/Freon 22 (Difluoro-monochloro- methane) | - | - |
| Furfural | - | - |
| Furfuryl alcohol | o | |

| Test substance | 20 °C | 50 °C |
|--|-------|-------|
| Perchloroethylene | ٥ | ٥ |
| (Tetrachloroethylene) | | |
| Petroleum ether | 0 | 0 |
| Petroleum jelly | 0 | - |
| Petroleum jelly | + | + |
| Phenacetin | + | + |
| Phenol | - | - |
| Phenylethanol | - | - |
| Phosphoric acid (1%) | + | + |
| Phosphoric acid (30 %) | + | + |
| Phosphoric acid (85%) | + | + |
| Phthalic acid (soln.) Pimento (ground) | + | + |
| Pine needles, oil of | 0 | - |
| Pineapple juice | + | + |
| Plastomoll DOA (di-(2-ethyl-hexyl) adipate, BASF) | ٥ | ٥ |
| Pork lard | + | + |
| Potassium aluminium sulphate (soln.) | + | + |
| Potassium bisulfate | + | + |
| Potassium bromate (soln.) | + | + |

| Test substance | 20 °C | 50 °C |
|-----------------------|-------|-------|
| Zinc stearate | + | + |
| Zinc sulphate (soln.) | + | + |

Symbol legend

| The symbols and abbreviations used have the following meanings | | |
|--|---|--|
| + | = resistant over a period of months to years | |
| 0 | = limited resistance: some swelling, solvation or environmental stress cracking is possible | |
| - | = not resistant: severe swelling, decomposition, solvation or environmental stress cracking | |
| soln. = saturated aqueous solution | | |
| _ | | |

Resistance definition

| Good resistance | Water, aqueous salt solutions, detergent solutions, dilute acids and alkalis. |
|--------------------|--|
| Limited resistance | Alcohols, aliphatic hydrocarbons, oils and fats. |
| Not resistant | Concentrated mineral acids, aromatic and/or halogenated hydrocarbons, esters, ethers, ketones. |
| Solvents | Examples are methyl ethyl ketone, tetrahydrofuran, toluene, dimethyl-formamide. |

Source data:

BASF - Chemical resistance of styrene co-polymers

www.basf.de/plastics