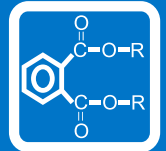




# YONGLI BELTING

## Chemical resistance reference



*Designed to keep you moving*



| Categories         | PVC | N-PVC | TPU | PE | Hyrel | Silicone |
|--------------------|-----|-------|-----|----|-------|----------|
| <b>Food</b>        |     |       |     |    |       |          |
| Animal fats        | X   | ●     | ●   | ●  | ●     | ○        |
| Beer               | ●   | ●     | ●   | -  | -     | -        |
| Butter             | X   | ●     | ●   | ●  | ●     | ●        |
| Cheese             | ○   | ●     | ●   | ●  | ●     | ●        |
| Chinese teas       | ○   | ○     | ○   | -  | -     | -        |
| Chocolate          | ●   | ●     | ●   | -  | -     | ●        |
| Citric acids       | ●   | ●     | ●   | ●  | ●     | ●        |
| Coconut oils       | X   | ●     | ●   | ●  | ●     | ●        |
| Corn               | ●   | ●     | ●   | -  | -     | -        |
| Corn oils          | X   | ●     | ●   | ●  | ●     | ●        |
| Cottonseed oils    | X   | ●     | ●   | ●  | ●     | ●        |
| Dry salt           | ●   | ●     | ●   | ●  | ●     | ●        |
| Fatty acids        | X   | ○     | ●   | ●  | ●     | ●        |
| Fish               | ●   | ●     | ●   | -  | -     | -        |
| Fruit juices       | ○   | ○     | ●   | ●  | ●     | ●        |
| Fruit sauces       | ●   | ●     | ●   | ●  | ●     | ●        |
| Glucose            | ●   | ●     | ●   | -  | -     | ●        |
| Lard               | X   | ●     | ●   | -  | -     | ●        |
| α-Linseed oils     | X   | ●     | ●   | -  | -     | ●        |
| Milk               | ●   | ●     | ●   | ●  | ●     | ●        |
| Mineral oils       | ○   | ●     | ●   | ●  | ●     | ●        |
| Molasses           | ●   | ●     | ●   | -  | -     | ●        |
| Palm oils          | ○   | ●     | ●   | ●  | ●     | ●        |
| Peanut oils        | X   | ●     | ○   | ●  | ●     | ●        |
| Sodium bicarbonate | ●   | ●     | ●   | -  | -     | ●        |
| Sodium chloride    | ●   | ●     | ●   | ●  | ●     | ●        |
| Soybean oils       | ○   | ●     | ●   | ●  | ●     | ●        |
| Sugar beets        | ●   | ●     | ●   | -  | -     | -        |
| Sugar canes        | ●   | ●     | ●   | -  | -     | -        |
| Turpentine         | -   | ○     | ○   | X  | X     | ○        |
| Vegetable (raw)    | ●   | ●     | ●   | -  | -     | -        |
| Vegetable oils     | X   | ●     | ●   | -  | -     | ●        |
| Vinegar            | ●   | ●     | ○   | -  | -     | ●        |
| Water              | ●   | ●     | ●   | ●  | ●     | ●        |
| Wine               | ○   | ●     | ●   | -  | -     | -        |

● Good resistance      ○ Limited resistance      X No resistance      - Insufficient evidence

| Categories                    | PVC | N-PVC | TPU | PE | Hyrel | Silicone |
|-------------------------------|-----|-------|-----|----|-------|----------|
| <b>Pharmaceuticals</b>        |     |       |     |    |       |          |
| Aluminium chloride            | ●   | ●     | ●   | ●  | -     | -        |
| Ferric sulfate                | ●   | ●     | ●   | ●  | -     | ●        |
| Furfural                      | X   | X     | -   | ○  | -     | ●        |
| Sodium bicarbonate            | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium chloride               | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium phosphate              | ●   | ●     | ●   | ●  | -     | -        |
| <b>Agriculture fertilizer</b> |     |       |     |    |       |          |
| Ammonium carbonate            | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium nitrate              | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium phosphate            | ●   | ●     | ●   | ●  | -     | -        |
| Calcium nitrate               | ●   | ●     | ●   | ●  | -     | -        |
| Copper sulfate                | ●   | ●     | ●   | ●  | -     | -        |
| Potassium sulfate             | ●   | ●     | ●   | ●  | ●     | ●        |
| <b>Commodity</b>              |     |       |     |    |       |          |
| Nail polish                   | ○   | ○     | ●   | -  | -     | ●        |
| Perfume                       | ○   | ○     | ●   | -  | -     | ●        |
| Shampoo                       | ●   | ●     | ●   | -  | -     | ●        |
| Soap                          | ●   | ●     | ○   | -  | -     | ●        |
| Toothpaste                    | ●   | ●     | ●   | -  | -     | ●        |
| Vaseline                      | ●   | ●     | ●   | -  | -     | ●        |
| <b>Chemicals</b>              |     |       |     |    |       |          |
| Acetaldehyde                  | X   | X     | X   | X  | ○     | X        |
| Acetic acids (10%)            | ●   | ●     | ○   | ●  | ●     | ●        |
| Acetone                       | ●   | X     | X   | ○  | ○     | ●        |
| Aluminium chloride            | ●   | ●     | ●   | ●  | -     | -        |
| Aluminium nitrate             | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium carbonate            | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium hydroxide            | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium nitrate              | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium phosphate            | ●   | ●     | ●   | ●  | -     | -        |
| Ammonium sulfate              | ●   | ●     | ●   | ●  | -     | -        |
| Barium chloride               | ●   | ●     | ●   | ●  | -     | -        |
| Calcium chloride              | ●   | ●     | ●   | ●  | -     | ●        |
| Calcium hydroxide             | ●   | ●     | ●   | ●  | -     | -        |
| Calcium nitrate               | ●   | ●     | ●   | ●  | -     | -        |

● Good resistance      ○ Limited resistance      X No resistance      - Insufficient evidence

| Categories              | PVC | N-PVC | TPU | PE | Hyrel | Silicone |
|-------------------------|-----|-------|-----|----|-------|----------|
| <b>Chemicals</b>        |     |       |     |    |       |          |
| Carbolic acids          | X   | X     | X   | ○  | X     | X        |
| Chlorine solutions      | ○   | ○     | X   | -  | ○     | X        |
| Copper sulfate          | ●   | ●     | ●   | ●  | -     | -        |
| Ferric chloride         | ●   | ●     | ●   | ●  | -     | -        |
| Ferric sulfate          | ●   | ●     | ●   | ●  | -     | ●        |
| Glacial acetic acids    | ○   | ○     | X   | X  | ○     | ●        |
| Hydrochloric acid (10%) | ○   | ○     | X   | ●  | ○     | ○        |
| Hydrochloric acid (40%) | X   | X     | X   | X  | X     | X        |
| Limestone               | ●   | ●     | ●   | ●  | -     | -        |
| Magnesium chloride      | ●   | ●     | ●   | ●  | -     | ●        |
| Magnesium hydroxide     | ●   | ●     | ○   | ●  | -     | -        |
| Magnesium sulfate       | ●   | ●     | ●   | ●  | -     | -        |
| Nitric acids (10%)      | ○   | X     | ○   | ●  | X     | X        |
| Nitric acids (30%)      | X   | X     | X   | ○  | X     | X        |
| Nitric acids (50%)      | X   | X     | X   | X  | X     | X        |
| Phosphoric acids (10%)  | ●   | ●     | ●   | ●  | ●     | ●        |
| Phosphoric acids (30%)  | ●   | ●     | ●   | ●  | ●     | ●        |
| Potassium chloride      | ●   | ●     | ●   | ●  | ●     | ●        |
| Potassium nitrate       | ●   | ●     | ●   | ●  | ●     | ●        |
| Potassium sulfate       | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium bisulfate        | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium chloride         | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium hydroxide        | X   | ○     | ○   | ●  | -     | -        |
| Sodium phosphates       | ●   | ●     | ●   | ●  | -     | -        |
| Sodium Sulfate          | ●   | ●     | ●   | ●  | -     | ●        |
| Sodium Sulfide          | ●   | ●     | ●   | ●  | -     | ●        |
| Sulfur                  | ●   | ●     | ●   | ●  | ●     | -        |
| Sulfuric acids (10%)    | ○   | ○     | ○   | ●  | ●     | ○        |
| Sulfuric acids (30%)    | ○   | ○     | ○   | ○  | ○     | ○        |
| Sulfuric acids (50%)    | ○   | X     | X   | ○  | X     | X        |
| Tetrachloroethylene     | X   | X     | ○   | X  | X     | X        |
| Toluene                 | X   | X     | X   | X  | X     | X        |
| Zinc chloride           | ●   | ●     | ●   | ●  | -     | -        |
| Zinc sulphate           | ●   | ●     | ●   | ●  | -     | -        |

● Good resistance      ○ Limited resistance      X No resistance      - Insufficient evidence

| Categories               | PVC | N-PVC | TPU | PE | Hyrel | Silicone |
|--------------------------|-----|-------|-----|----|-------|----------|
| <b>Chemical products</b> |     |       |     |    |       |          |
| Asphalt                  | X   | ○     | ○   | ○  | ●     | -        |
| Borax                    | ●   | ●     | ●   | ○  | ●     | ●        |
| Boric acids              | ●   | ●     | ●   | ●  | ●     | ●        |
| Castor oils              | X   | ●     | ●   | ●  | ●     | ●        |
| Citric acids             | ●   | ●     | ●   | ●  | ●     | ●        |
| Coconut oils             | X   | ●     | ●   | ●  | ●     | ●        |
| Cottonseed oils          | X   | ●     | ●   | ●  | ●     | ●        |
| Denatured alcohol        | ○   | ○     | ○   | ○  | ○     | ○        |
| Diesel fuel              | ○   | ●     | ●   | -  | ○     | ○        |
| Ethyl alcohol (10%)      | ○   | ○     | ○   | ●  | ●     | ●        |
| Ethyl alcohol (50%)      | ○   | ○     | ○   | ●  | ●     | ●        |
| Ethyl alcohol (75%)      | ○   | ○     | ○   | ●  | ●     | ●        |
| Ethyl alcohol (96%)      | ○   | ○     | ○   | ○  | ○     | ○        |
| Formaldehyde             | ○   | ○     | X   | ●  | ○     | ○        |
| Fuel oils                | ○   | ●     | ○   | -  | ●     | ○        |
| Furfural                 | X   | X     | -   | ○  | -     | ●        |
| Gasoline                 | X   | ○     | ●   | -  | ●     | ○        |
| Glucose                  | ●   | ●     | ●   | ●  | ●     | ●        |
| Glycerine                | ●   | ●     | ●   | ●  | ●     | ●        |
| Hydraulic oil            | X   | ○     | ●   | -  | ●     | ○        |
| Kerosene                 | X   | X     | ○   | ○  | ●     | ○        |
| Lacquers                 | X   | X     | X   | -  | ●     | X        |
| Lubricating oils         | X   | ●     | ○   | -  | ●     | ○        |
| Medicinal alcohol        | ○   | ○     | ○   | ●  | ●     | ●        |
| Methyl alcohol           | ○   | ●     | ○   | ●  | ●     | ●        |
| Mineral oils             | ○   | ●     | ●   | ●  | ●     | ●        |
| Molasses                 | ●   | ●     | ●   | ●  | ●     | ●        |
| Oil sands                | X   | ○     | ●   | -  | -     | -        |
| Paraffin wax             | ●   | ●     | ●   | ●  | ●     | ●        |
| Petroleum oils           | ○   | ●     | ○   | -  | -     | ●        |
| Silicone oils            | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium carbonate         | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium bicarbonate       | ●   | ●     | ●   | ●  | ●     | ●        |
| Sodium hydroxide         | X   | ○     | ○   | ●  | -     | -        |
| Sodium hypochlorite      | ○   | ○     | X   | ○  | ○     | -        |

● Good resistance

○ Limited resistance

X No resistance

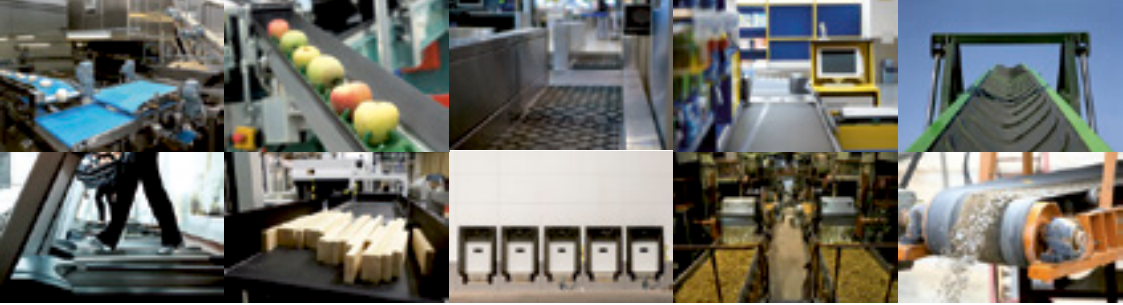
- Insufficient evidence

| Categories               | PVC | N-PVC | TPU | PE | Hytrel | Silicone |
|--------------------------|-----|-------|-----|----|--------|----------|
| <b>Chemical products</b> |     |       |     |    |        |          |
| Sodium silicate          | ●   | ●     | ●   | ●  | -      | ●        |
| Tar                      | ○   | ●     | ●   | -  | -      | -        |
| Tartaric acids           | ●   | ●     | ●   | ●  | ●      | ●        |
| Tetrachloroethylene      | X   | X     | ○   | X  | X      | X        |
| Turpentine               | -   | ○     | ○   | X  | X      | ○        |
| Urea                     | ●   | ●     | ●   | ●  | ●      | -        |

|                   |                      |                 |                         |
|-------------------|----------------------|-----------------|-------------------------|
| ● Good resistance | ○ Limited resistance | X No resistance | - Insufficient evidence |
|-------------------|----------------------|-----------------|-------------------------|

All data are approximated values and defined under the following standard climatic conditions: 23°C and 50% relative humidity (ISO 554). All the indications on the list of chemical resistance reference are based on laboratory tests and practical experiences. Substantial deviations from the standard ambient conditions may cause changes of the chemical resistance property for different coating materials. Such as: temperature, moisture and multi-chemical mix solution or volatile gas etc.

YongLi recommends that the test of chemical resistance can be made under your operating conditions to check the actual situation for the media in contact with our belts. We will be very pleased to give you our suggestion and make relevant laboratory tests according to your provided information and samples. YongLi can not guarantee any individual cases. For further information, please contact our salesman, we will be very glad to make R&D and progress together with you.



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