



## GOLIATH ROOFING SYSTEM CHEMICAL COMPATIBILITY CHART – FLEXIBLE PVC

Chemical compatibility charts are an important reference tool for customers and installers to help identify how PVC will perform when exposed to different commonly encountered chemicals through spillage, leaks or storage.

The significance of such a chart lies in its capability to maintain proper material selection, risk assessment, and long-term maintenance.

Roofing membranes can be exposed to acids, cleaning agents, oils, fuels, industrial chemicals, and environmental contaminants through spills, equipment leaks, or atmospheric deposition.

Knowing compatibility helps engineers and facility managers prevent premature membrane failure caused by plasticizer extraction, swelling, cracking, or chemical attack.

### Compatibility Rating:

X – Not compatible (>50% swelling)

A – Good resistance (15% swelling), A\*- under clauses such as concentration, purity, atmospheric conditions (15-30 % swelling)

B – Mild to moderate effect (30% swelling)

C – Severe effect (50% swelling)



### Compatibility Rating:

X – Not compatible (>50% swelling), A – Good resistance (15% swelling),  
 A\* – under clauses such as concentration, purity, atmospheric conditions (15-30 % swelling)  
 B – Mild to moderate effect (30% swelling), C – Severe effect (50% swelling)

### Acids

| Chemical          | Conc. At 72°F (%)               | Compatibility Rating (sqft)        |
|-------------------|---------------------------------|------------------------------------|
| Hydrochloric Acid | 37wt.%                          | A*                                 |
| Sulphuric Acid    | –                               | A-C*<br>(worse with increasing °F) |
| Acetic Acid       | 20-80wt.%                       | C                                  |
| Muriatic Acid     | Diluted muriatic acid > 30%wt.% | A                                  |
| Oleic Acid        |                                 | A                                  |

### Alkalis

| Chemical            | Conc. At 72°F (%)              | Compatibility Rating (sqft) |
|---------------------|--------------------------------|-----------------------------|
| Sodium Hydroxide    | 10wt.% (sanitary applications) | A                           |
| Potassium Hydroxide | 50wt.% (caustic potash or ash) | A                           |
| Ammonia             | 10wt.% (aqueous agent)         | A                           |

### Fuel

| Chemical    | Conc. At 72°F (%) | Compatibility Rating (sqft) |
|-------------|-------------------|-----------------------------|
| Diesel Fuel | Regular           | X                           |
| Gasoline    | Unleaded          | X                           |

### Compatibility Rating:

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 A\* – under clauses such as concentration, purity, atmospheric conditions (15-30 % swelling)  
 B – Mild to moderate effect (30% swelling), C – Severe effect (50% swelling)

### Oils

| Chemical        | Conc. At 72°F (%) | Compatibility Rating (sqft) |
|-----------------|-------------------|-----------------------------|
| Lubricating Oil |                   | C                           |
| Hydraulic Oil   |                   | C                           |
| Cooking Oil     | Restaurants       | A                           |
| Tallow          |                   | X                           |
| Mineral Oil     |                   | A                           |
| Linseed Oil     |                   | A                           |
| Canola Oil      | Restaurants       | A                           |
| Animal Oil      |                   | A*                          |
| HVAC Oil        |                   | A*                          |

### Oxidizing Agents

| Chemical            | Conc. At 72°F (%)         | Compatibility Rating (sqft) |
|---------------------|---------------------------|-----------------------------|
| Hydrogen Peroxide   | 30wt.% (oxidizing/bleach) | A                           |
| Sodium Hypochlorite | Unleaded                  | A                           |

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 A\* – under clauses such as concentration, purity, atmospheric conditions (15-30 % swelling)  
 B – Mild to moderate effect (30% swelling), C – Severe effect (50% swelling)

## Salts/Minerals

| Chemical           | Conc. At 72°F (%)                         | Compatibility Rating (sqft) |
|--------------------|-------------------------------------------|-----------------------------|
| Sodium Salts       | Table salt                                | A                           |
| Brine              | Industrial salted waste water             | –                           |
| Calcium Salts      | Road salt, pulp & paper treatment         | A                           |
| Urea               | (fertilizers, *uric acid- bird droppings) | A                           |
| Detergent Solution |                                           | A                           |

## Solvents

| Chemical                     | Conc. At 72°F (%)                 | Compatibility Rating (sqft) |
|------------------------------|-----------------------------------|-----------------------------|
| MEK<br>(Methyl ethyl ketone) | Widely used industrial solvent    | C                           |
| Toluene                      | Widely used industrial solvent    | X                           |
| Methyl alcohol               | Gasoline & Anti-freeze            | C                           |
| Acetone                      | Solvents in paints, lacquers, wax | X                           |
| Benzene                      | Base for aromatic compounds       | C                           |

## Paints & Lacquers

| Chemical      | Conc. At 72°F (%)                     | Compatibility Rating (sqft) |
|---------------|---------------------------------------|-----------------------------|
| Acrylic Paint | painting in construction applications | A                           |
| Latex Paint   | –                                     | A                           |

**\*\*Note-** This chemical compatibility information is provided for general guidance only. Actual performance may vary depending on the specific PVC formulation, membrane assembly, chemical concentration, exposure conditions, temperature, and duration of contact. Field suitability should be confirmed through project-specific evaluation and consultation with the manufacturer.

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