

Gelcoat Resin

RenGel SW 404 / Ren[®] HY 2404 or HY 5159

Filled epoxy system, with outstanding abrasion resistance

Key properties

- Outstanding mechanical strength and qualities
- Good chemical resistance
- Very hard, abrasion-resistant surfaces

Applications

- Foundry patterns
- Copy-milling models
- Foaming and concrete-casting moulds
- Tools and tooling aids

Product data

| Property | Unit | RenGel SW 404 | Ren HY 2404 | Ren HY 5159 |
|-------------------|-------------------|---------------|--------------------------|--------------------------|
| Appearance Colour | visual | Paste Blue | Clear liquid Pale yellow | Clear liquid Pale yellow |
| Viscosity at 25°C | mPas | 55,000-80,000 | 3,500-5,500 | 150-250 |
| Density | g/cm ³ | 1.85-1.95 | 1.0-1.05 | 0.98 |

Processing

| Mix ratio | Parts by weight | |
|---------------|-----------------|-----|
| RenGel SW 404 | 100 | 100 |
| Ren HY 2404 | 10 | - |
| Ren HY 5159 | - | 8 |

Mix the two components thoroughly in the ratio indicated.
 Apply in thin layers with a brush or spatula, wait until gelcoat has gelled, but ensure that it is still slightly tacky before proceeding.
 Post-curing will improve final properties.

Properties

| Resin/Hardener mix: | Volume | Unit | SW 404 HY 2404 | SW 404 HY 5159 |
|---------------------|--------|------|-------------------|-------------------|
| Appearance | | | Blue | Blue |
| Pot life at 25°C | 250 ml | min | 15 | 50 |
| Demoulding time | | h | 12 | 12 |

After cure: with HY 2404: 14 hours at 60°C
with HY 5159: 14 hours gradually to 80°C

| | | | | |
|------------------------|----------|-----------------------|-------|-------|
| Density | ISO 1183 | g/cm ³ | 1.8 | 1.8 |
| Hardness | ISO 868 | Shore D | 85-90 | 85-90 |
| Deflection temperature | ISO 75 | °C | 80 | 100 |
| Abrasion | Taber | mm ³ /100U | 4-6 | 4-6 |

Storage

The resin and hardeners described in this instruction sheet have the shelf lives shown provided they are stored at 6 - 28°C in a dry place and sealed containers, preferably those in which they are supplied.

Working condition

The products should be handled when in the temperature range of 20 - 25°C.

Packaging

| System | SW 404 | HY 2404 | HY 5159 |
|---------------------|-----------|-----------|------------|
| Quantity and Weight | 2 x 10kg | 6 x 1kg | 6 x .800gr |
| Quantity and Weight | 2 x 3kg | 6 x 300gr | 6 x 240gr |
| Quantity and Weight | 6 x 500gr | 6 x 50gr | 6 x 40gr |

Handling precautions

Caution

Vantico products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in Vantico publication No. 24264/3/e Hygienic precautions for handling plastics products of Vantico and in the Vantico Material Safety Data sheets for the individual products. These publications are available on request and should be referred to for fuller information.

Vantico Limited Adhesives and Tooling

All recommendations for the use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefor. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

Duxford, Cambridge
England CB2 4QA

Tel: +44 (0) 1223 493 000
Fax: +44 (0) 1223 493 002

www.tooling.vantico.com

© Vantico Ltd, 2002

® Ren and RenShape are registered trademarks of Vantico AG, Basel, Switzerland