Variocomp Filling Compound Replacement

Background

Since 2014, Central Heating New Zealand has proudly supplied the Variocomp underfloor heating system from Variotherm (Austria), delivering over 30,000m² of lightweight, low-height heating solutions to homes and businesses across New Zealand.

Why The Change?

The Variocomp system has been a great solution, but its filling compound presents challenges:

- **Shelf Life:** The Variocomp compound has a 12-month shelf life. Shipping from Europe takes 3–4 months, leaving only 8–9 months of usable life once it reaches our warehouses.
- **Waste & Cost:** To avoid expired product reaching customers, we've had to discard unused bags—absorbing the cost of import and disposal.

To address this, we've partnered with Ezymix, a New Zealand manufacturer of dry mortar compounds, supported by Maxit in Germany. This partnership ensures locally made, readily available, and technically supported products for Variocomp installations.

What's Changing?

Ezymix will supply EM202 Floor Levelling Compound and EM4716 Adhesive Primer for Variocomp systems. Here's what you need to know:

1. **Primer Application:**
    - Two coats of EM4716 primer are required:
        - First coat: After panels are laid
        - Second coat: After pipes are fitted
    - Additional coat of primer may be needed if an additional layer of EM202 levelling compound is required.

2. **Coverage & Mixing:**
    - EM202 comes in 20kg bags, mixed with 4–4.4L water.
    - Coverage: 1 bag per 2m² (vs. 4m² for Variocomp compound).

3. **Drying Time:**
    - Slightly longer wait before the floor is trafficable (approx. 2–6 hours for light traffic).

4. **Levelling Benefits:**
    - EM202 provides a very level finish, reducing the need for extra layers.
    - If additional levelling is needed, EM202 can be reused with EM4716 primer—simplifying the process.
    - Improved levelling and time savings reduce impact of higher product cost.

5. **Procurement:**
    - Central Heating NZ will not stock Ezymix products.
    - We'll include a PC sum in quotes, then direct customers to purchase from Ezymix (Hamilton).

6. **Technical Support:**
    - Ezymix offers local, timely support, ensuring faster resolution of technical queries compared to overseas consultation.

Benefits For You

- **No expired product risk**
- **Locally manufactured and supported**
- **Simplified levelling process**
- **No increase in overall system cost**
- **Faster technical assistance**

Next Steps

For upcoming projects, please allow for the EM202 and EM4716 products in your planning. Our team will guide you through the transition and ensure your installations remain smooth and efficient.

Who to Contact

To make this transition smooth, please use the following guidelines for support:

Contact Central Heating New Zealand (✉: info@centralheating.co.nz ✆: 0800 357 1233) for:

- Project design and specification advice for Variocomp systems
- Quotes and proposals (including PC sums for EM202 and EM4716)
- Installation guidance for Variocomp panels and pipe layout
- General underfloor heating system queries

Contact Ezymix (✉: info@ezymix.co.nz ✆: (07) 888 4324) for:

- Purchasing EM202 Floor Levelling Compound and EM4716 Adhesive Primer
- Technical support for mixing, application, and curing times
- Advice on additional levelling requirements or compatibility with floor finishes
- Special project requirements related to flooring compounds

Technical Comparison:

Feature	Variotherm Filling Compound	Ezymix EM202 & EM4716
Product Image		
Floor Loadbearing capacity	1.0-1.5mm max deformation with 100kG load applied on 100x100mm	1.0-1.5mm max deformation with 100kG load applied on 100x100mm
Movement joints	max area 80m², max length 12m - expansion joints to be formed to prevent either being exceeded.	max area 80m², max length 12m - expansion joints to be formed to prevent either being exceeded.
Panel Primer	Not required	EM4716 required, 2 layers applied; - 1st layer applied after laying panels - 2nd layer applied after laying pipes 10L container mixed at 3 parts water to 1 part EM4716. 10L container provides coverage for a floor area of 100m² per coat. 20L required for 2 coats per 100m² or 0.2L/m².
Filling compound bag life	12 months	12 months
Filling compound mix/application rate	Variocomp T7 25kg bag, mix with 8L of water to provide coverage for 4m² of floor area	Ezymix EM202 20kg bag, mix with 4L - 4.4L of water to provide coverage for 2.0m² of floor area
Filling compound temperature range for application	+5°C to +30°C & max RH of 70%	+8°C to +30°C & max RH of 70%
Filling compound mixing time	600 RPM 1.5-2.0 minutes	600 RPM 1.5-2.0 minutes
Filling compound pot life	20-30 minutes	20-30 minutes
Floor trafficable time	@20°C = 1.5 hours @10°C = 2.5 hours	- approx. 2-6 hours - Light Traffic - approx. 12 hours - Heavy Traffic
Maximum ground pressure	75kg/cm²	75kg/cm²
1st pour levelling	Once dry use trowel or plastering knife to remove excess compound	If there are any visible trowel lines scrape away once dry.
2nd layer	- Within 3 hours of first layer apply directly with 10L of water per 25kg bag. - After 3hrs apply primer and calcium sulphate levelling compound	- Within 3hrs in winter & 1.5hrs in summer apply with 4L - 4.4L water per bag. - After 3hrs apply EM4716 Primer and a layer of EM202.
Heating operation wait time	@20°C min 4 hours	@20°C min 12 hours
Flooring application wait time	- Without heating 6-8 days. - With heating 24-48hrs	- Without heating 6-8 days. - With heating 24-48hrs.
Additional floor levelling	List of approved primer and calcium sulphate levelling compounds provided in manual.	EM4716 Adhesive Primer & EM202 Floor Levelling Compound.
Wet floor sealing systems	List of example sealing systems provided in manual.	EM240 Internal Waterproofing Membrane.
Tile adhesives	Only adhesives classified as S1 according to EN 12004 are to be used.	Only use EM250 & EM251 Tile Adhesives, both are C2 TE S1 grade Tile Adhesives.
Timber flooring	Installation with 2mm underlay recommended, gluing of engineered/laminate floors okay but gluing of solid wood floors not permitted.	Installation with 2mm underlay recommended, gluing of engineered/laminate floors okay but gluing of solid wood floors not permitted.
Thermal conductivity	0.61W/K	1.4W/K
Oven-dry density	1450kg/m³	1500kg/m³
Reaction to fire	A1 fl (EN 13813)	A1 fl (EN 13813)
Compression Strength	16MPa	25MPa
Flexural strength	4MPa	5MPa
Finished System Weight	25kg/m² (one coat)	26kg/m² (one coat)