

MANUFACTURER

NANVERA Advanced Materials

PRODUCT CODE (SKU)

HX-007 — HX Sealant

REVISION DATE

May 2026 / Rev. 02

1. Product Description

An ultra-hard, highly elastic hybrid putty-sealant for joints, specifically designed to fill and seal expansion and structural joints, repair deep cracks, and level concrete, metal and gypsum surfaces prior to applying waterproofing and finishing coats.

It has a dense, non-sag consistency with no shrinkage after curing, and provides high mechanical and chemical adhesion with complete protection against water and moisture ingress.

2. Recommended Uses

- Filling and sealing expansion and structural joints in buildings, swimming pools, tanks and tunnels.
- Repair and filling of concrete cracks, including hairline and deep cracks.
- Surface levelling and concealing Fiberglass Mesh texture in reinforced waterproofing systems.
- Sealing and preparing the perimeter of joints and panel edges before applying HYDROXY coatings and polymeric self-levelling floors.

4. Application Instructions

- Surface and joint preparation: thoroughly clean joints and cracks of dust, oils, loose particles and grease. Priming the inner surface of the joint is recommended (HYDROXY Insuplus or Nano Rubber).
- Mixing: add the hardener (Component B) to the putty (Component A) at a ratio of 1-2% by weight and mix thoroughly by hand or mechanically until homogeneous.
- Application: press the putty into the joint or crack using a trowel or caulking tool, ensuring air is expelled without leaving voids.
- Finishing: smooth the surface immediately before skinning occurs; allow to fully dry before applying top coats.
- Coverage rate: 0.50-1.0 kg/m² (depending on joint depth and width, and surface roughness).

5. Packaging & Storage

- Packaging: two-component kit (Component A + Component B) in 15 kg or 5 kg pails.
- Storage: store in a dry, cool, well-ventilated place away from direct sunlight, at room temperature.
- Shelf life: 12 months in original, unopened packaging.

6. Safety Data (HSE)

Classification: non-toxic, water-based, non-flammable in its liquid state.

Precautions: ensure adequate ventilation during application. Use PPE (gloves, safety goggles, dust/respiratory mask). Avoid eye contact or prolonged skin contact. Keep out of reach of children.

3. Technical & Physical Properties

Property	Value	Test Method
Physical state	Thick, non-sag paste	ISO 7390
Color	Off-White / Gray (yellowish-white tint)	—
Chemical base	Hybrid polymer resin reinforced with Nano Rubber TECH	—
System type	Two-component (resin/putty + hardener)	—
Mixing ratio	1% - 2% hardener by weight	—
Density	1.40 - 1.50 g/cm ³	ASTM D1475
Solids content	61.2% - 69%	ASTM D1644
VOC content	Zero / < 10 g/L (eco-friendly)	—
Adhesion strength	≤ 2.4 MPa (class B5 - concrete and metal)	ASTM D4541 / ASTM D3359
Elongation at break	Up to 900% (high elasticity)	ASTM D412
Water permeability	Class W3 (absolute resistance)	EN 1062-3
Drying time (at 25°C)	Dust-free: 30-50 min Full dry: 120 min Cure: 24-48 h	ASTM D1640

6. Legal Disclaimer

The data provided are based on certified laboratory testing and practical experience. The manufacturer, KEMT CASTELLO, warrants only the compliance and standard quality of the supplied material, as the conditions of joint preparation and on-site application are outside its direct control.