



# KIMAX® PRODUCT INFO

## KIMAX® Glass Drainline & KOCH KNIGHTWARE® Neutralization Sumps: Sustainable laboratory design from products that withstand the test of time

The design and construction industries are experiencing dramatic changes led by new Federal and State requirements. The green building movement is growing with the help of programs like the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) and the Department of Energy's Labs21. These developments are transforming the marketplace and calling on everyone, from owners and architects to engineers and contractors, to make the ideas and practices of sustainable design the norm. As has been the case for over 40 years, KIMAX Glass Drainline and KOCH KNIGHTWARE Neutralization Sumps are uniquely suited to offer a comprehensive sustainable solution for acid waste piping and neutralization systems.

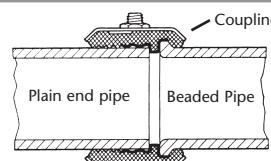
### Sustainability:

- Lowest life-cycle costs on the market (installation, maintenance, replacement)
- Modularity, flexibility, and adaptability in both design and maintenance
- Easily reconfigured to meet changing lab requirements and chemical compatibility needs

### Environmental Responsibility:

- Low VOC's (Volatile Organic Compounds)
- Water Conservation – No copious dilution required
- Waste Water Treatment – on-site transport and neutralization of acids
- Installer and lab occupant safety – no off-gassing of toxic fumes

### Fast & Easy Installation – No field beading required



KIMAX Bead-to-Plain coupling system

### Performance & Safety:

- Durability - maximum corrosion resistance and low relative thermal expansion
- Dependability - maximum chemical compatibility in respect to temperature, concentration and intermixing
- Will not burn or emit toxic fumes and no change in physical properties over time
- Leak-proof mechanical joint couplings
- No field welding or fusing required



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glass made of ideas

# KIMAX® STANDARD SPECIFICATIONS

## Acid Waste Drain and Vent Piping System

The system shall be made of a KIMAX UL Classified Borosilicate glass conforming to ASTM Specification C 1053-90, Federal Specification DD-G-541-B and Military Specification MIL-P-22561-B (YD) as manufactured by SCHOTT. Glass-to-glass connections shall be made with KIMAX compression type bead-to-bead and bead-to-plain end couplings – article numbers 6650 and 6661 respectively. Coupling's outer shell, bolt and nut to be made from 300 series stainless steel. Bead-to-plain end coupling outer shell must encapsulate compression liner to prevent cold flow and ensure leak-free joint. Inner seal ring is made of tetra-fluoroethylene. System shall be installed in accordance with the manufacturer's recommendations and the governing plumbing code.

**Underground Glass Pipe:** Excavation shall conform to national and local plumbing codes. Bottom of trench shall consist of a minimum 4" of rock-free sand or soil, compacted and graded to provide uniform full length support. Back-fill with rock-free sand and/or soil to 12" above pipe. When the above conditions cannot be met, consult the manufacturer for their recommendations. KIMAX Protected Pipe, and wrapped fittings, shall be installed and back-filled in accordance with the manufacturer's instructions and governing plumbing code.

## Floor and wall penetrations

- a) Glass pipe passing through non-fire rated walls or floor slabs shall be fitted with pipe sleeves that have a diameter that is a minimum of 2" greater than the pipe O.D. Space between pipe and sleeve shall be packed with fiber glass, glass wool and/or a non-hardening approved caulking material.
- b) Glass pipe passing through fire rated walls or floor slabs shall be installed in accordance with Underwriters Laboratory fire penetration systems for KIMAX glass pipe.
- c) Glass pipe shall not be installed in direct contact with concrete. Fiber glass insulation or other type padding as approved by the pipe manufacturer shall be used to insulate between the two materials.
- d) Glass pipe shall be protected against all weld spatter.

## Installation and testing

Install and test in accordance with the manufacturer's recommendations and local code requirements. See KIMAX catalog for details.

## UL Classification

KIMAX glass piping systems are UL classified as a fire penetrant for laboratory fire rated walls and floors in the United States and Canada with File-No. R11306.

## IAPMO Listings

KIMAX glass piping systems and KOCH KNIGHTWARE® acid neutralization sumps are listed by the International Association of Plumbing and Mechanical Officials (IAPMO) under the file numbers 0500 and 3520 respectively.

### Tubing

**SCHOTT North America, Inc.**

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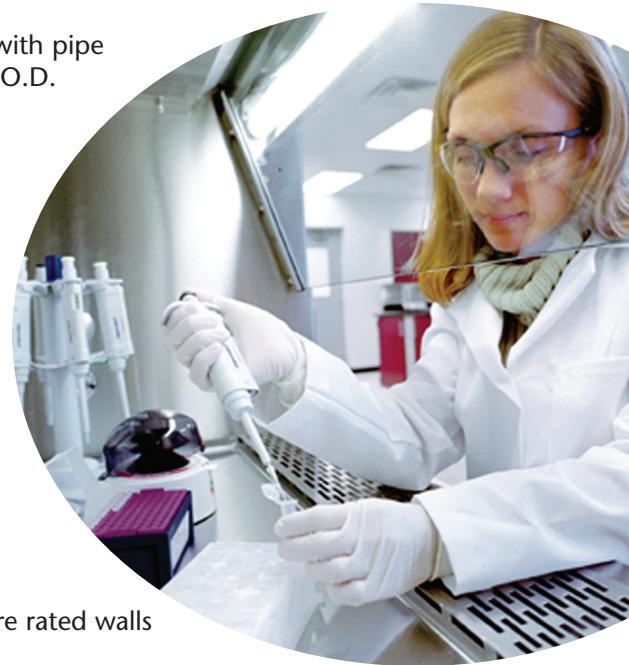
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