# Three-Part Specifications - Copyright 2025 - Nixalite® of America Inc

# K-Net<sup>™</sup> HT Bird Exclusion Netting & Hardware

Includes specifications for: Nixalite® K-Net HT<sup>TM</sup> Bird Exclusion Netting and the Tensioned Perimeter & Support Cable System.

Nixalite's exclusive **K-Net HT Bird Exclusion Netting** is the strongest and longest lasting bird netting available. The <sup>3</sup>/<sub>4</sub>" (1.9 cm) square mesh keeps out all but the smallest of pest bird species. Use Nixalite's K-Net HT Bird Exclusion netting to stop pest birds from getting to their preferred and protected roosts.

Nixalite's exclusive K-Net HT Bird Exclusion Netting is made of black, high-density polyethylene (HDPE) mesh. Each 12-ply knotted strand has a 75 pound (34 kg) knotted breaking strength. All pieces are seamless and borderless for clean edges and easier perimeter fastening. A Tensioned Perimeter & Support Cable System is available for fastening Nixalite's Bird Netting to all types of installation surfaces.

Nixalite K-Net HT Bird Exclusion Netting CSI locations;

Master Format 2004 – 10 81 00 - Pest Control Devices Master Format 2004 – 10 81 13 – Bird Control Devices

## **PART 1 - GENERAL**

#### 1.1 - SYSTEM DESCRIPTION:

- A. **K-Net HT Bird Exclusion Netting:** black, high-density polyethylene (HDPE) that is abrasion, rot and UV resistant. Stops birds with 3/4" (1.9 cm) square mesh. Each piece is seamless and borderless for clean edges and easier perimeter fastening.
- B. **Bird Netting Hardware** fastens the bird netting to all types of surface shapes and materials. A variety of netting installation tools and accessories are available.
- C. **Surface Cleaning System**: disinfectants and deodorizers to neutralize potentially hazardous bird and/or animal wastes and prepare the surface for installation.

#### 1.2 - QUALITY ASSURANCE

- A. Obtain all of Nixalite of America Inc.'s planning guidelines for the K-Net HT Bird Exclusion Netting. Installer to be familiar with the recommended installation procedures for the bird netting and specified mounting system.
- B. Obtain accurate and complete dimensions for bird netting enclosure. Accurate dimensions drive bird netting and hardware quantities and ensure accurate quotations and orders.
- C. Contractor to provide the **Nixalite Certificate of Authenticity** issued by Nixalite of America Inc after ordering the K-Net HT Bird Exclusion Netting. This provides information that will be required to receive project close out documentation.
- D. Bird netting to meet or exceed ISO 9001 2000 Quality Management Standards.

#### 1.3 - SUBMITTALS

- A. Manufacturer's literature including K-Net HT Bird Exclusion Netting brochures and installation guidelines. All guides for installing the specified bird netting hardware system and the specified surface cleaning system.
- B. Sample of the K-Net HT Bird Exclusion Netting. Not less than 4" square (10.16 cm).

#### 1.4 - STORAGE & HANDLING

A. Provide storage to keep all K-Net HT Bird Exclusion Netting system boxes dry, clean and undamaged.

B. Keep the K-Net HT Bird Exclusion Netting system in original packaging until needed for installation.

## PART 2 - PRODUCTS

#### 2.1 - ACCEPTABLE MANUFACTURER

A. Nixalite® of America Inc

1025 16th Avenue, East Moline, Illinois 61244; U.S.A.

P: 309.755.8771 - E: planning@nixalite.com or sales@nixalite.com www.nixalite.com

B. ABC Advanced Bird Control – A division of Nixalite® of America Inc.

PO Box 727, East Moline, Illinois 61244, U.S.A.

P: 309.755.4708 E: info@abcbirdcontrol.com www.abcbirdcontrol.com

#### 2.2 - K-NET HT BIRD EXCLUSION NETTING

- A. **Material:** High density polyethylene (HDPE) that is abrasion, UV and rot resistant. K-Net HT Bird Exclusion Netting is ideal for all bird exclusion jobs.
- B. Color: Black.
- C. **Construction**: Knotted 3/4" (1.9 cm) square mesh netting. 12 ply (4 x 3) strands with 75 pounds (33.9 kg) knotted breaking strength. All pieces are seamless and borderless.
- D. Standards: ISO 9001 2000 Quality Management Standards.
- E. Mesh size: 3/4" (1.9 cm) square mesh.
- F. Netting Sizes:

Widths: 25' (7.6 m), 50' (15.2 m).

Lengths: 25' (7.6 m), 50' (15.2 m) and 100' (30.4 m).

G. Warranties:

K-Net HT has a 15-year limited warranty.

H. Thermal & Physical Properties:

Softening point: 250 F° (122° C).

Melting point: 293 F° (145° C).

Flash point: 660 F° (349° C).

Remains flexible at very low temperatures.

Specific gravity: 0.96 (it floats). It will not absorb water.

Chemically inert - resistant to acids and alkalis at room temperature.

## 2.3 BIRD NETTING HARDWARE

- A. Installer to contact manufacturer for up-to-date information for bird netting hardware.
- B. Tensioned Perimeter and Support Cable Hardware System:

Choose the **Connection**, **Corner**, **Cable Guide** and **Finishing** hardware that best suits the installation surface.

- C. Net Cable & Connection Hardware:
  - a) **Net Cable:** Aircraft grade, all stainless steel, 7 x 7 (49 strand), 3/32" (2.2 mm) diameter cable with 900 lb. (407 kg) breaking strength. Net Cable comes in 250' (76.2 m) and 500' (152.4 m) spools.
  - b) **Turnbuckles:** Stainless steel, hook & eye turnbuckles. The size of the turnbuckle is determined by the maximum continuous cable length of any one cable run. For one **Small Turnbuckle** the max continuous cable length is 25 ft. (7.6 m). For one **Medium Turnbuckle** the max continuous cable length: 50 ft. (15.2 m). For one **Large Turnbuckle** the max continuous cable length: 75 ft. (22.9 m).

- c) **Net Ferrules:** Zinc plated copper crush ferrules for 3/32" (2.2 mm) dia. cable. Use when the max continuous cable length is 25 ft. (7.6 m) **OR LESS**. Use at least 2 ferrules per cable loop connection. Use Nixalite's Cable Swaging Tool to install ferrules. Use a Thimble with Net Ferrules.
- d) **Wire Rope Clamps**: Galvanized or stainless-steel wire rope clamps for 3/32" (2.2 mm) diameter cable. Use for loop connections on cable runs of 25' (7.6 m) or more. Use 2 or more clamps per cable loop connection. Use a Thimble with wire rope clamps.
- e) **Cable Thimble:** Stainless steel cable Thimble for 3/32" (2.2 mm) diameter cable. The Thimble prevents cable fraying and creasing when creating loop connections. Use one Thimble per loop connection.

### D. Corner Hardware (Anchoring):

- a) **Eyebolts:** HD stainless steel eyebolts used in steel and masonry surfaces. Two sizes: 1" (25.4 mm) threaded stem and 2" (51 mm) threaded stem for thicker surfaces. 9/16" ID (14.3 mm) eyelet for both sizes. Maximum distance between eyebolts: 50' (15.2 m). **For Steel:** If steel is open, drill clearance hole for stem, install eyebolt and use ¼ 20 NC hex nut to secure. If back of steel is not accessible, drill then tap the hole for ¼ 20 NC thread. Apply thread locker on eyebolt threads. Install the eyebolt. **For Masonry:** Use the HD stainless eyebolt with 1" threaded stem with the Masonry Machine Screw Anchors. Drill the recommended hole size for the anchors, insert and set the anchors and thread the eyebolt into the anchor.
- b) **Screw Eyes:** Use as corner hardware in wood and wood core surfaces. HD stainless steel screw eyes 2" (51 mm) long, 17/32" I.D. (13.5 mm). Pilot holes recommended. Maximum spacing between screw eyes: 50' (15.2 m).
- c) **Machine Screw Anchor:** Zinc plated anchor 1/2" (12.7 mm) diameter x 1" (25.4 mm) deep with 1/4-20 threads inside. Setting tool included with anchors.

#### E. Cable Guide Hardware:

- a) **Small Screw Eyes:** Use to keep cable close to the installation surface. Use on wood, sheet metal and wood core surfaces. Stainless steel, 1-3/16" long x 7/32" I.D. (31 mm long x 5.3 mm I.D.). Max spacing: 24" (61 cm) O.C. Pilot holes recommended.
- b) Small Eyebolts: Use to keep cable close to the installation surface. For steel, thick sheet metal and masonry surfaces. Heavy duty, stainless steel, 1 3/8" long x 9/32" I.D. (35 mm long x 7.1 mm I.D.) with stainless hex nut. Max spacing: 24" (61 cm) O.C. To fasten to Steel: If steel is open, drill clearance hole and install eyebolt and use 10-24 NC hex nut to secure. If back of steel is not accessible, drill then tap the hole for 10-24 NC thread and install the eyebolt.
  To fasten to Masonry: Use the small stainless-steel eyebolts and the small Machine
  - **To fasten to Masonry:** Use the small stainless-steel eyebolts and the small Machine Screw Anchors. Drill the recommended hole size for the anchors, insert and set the anchors and thread the eyebolt into the anchor.
- c) **Sidewinders For Steel:** Self drilling and self-tapping cable guides for heavy steel up to ½" (12.7 mm) Maximum spacing: 24" (61 cm). Install installed with the Sammy Socket accessory.
- d) **Sidewinders For Concrete:** For use in solid block or slab concrete. Requires ½" (6.35 mm) diameter and 2" (50.8 mm) deep drilled holes. Install the Sidewinder Sammy Socket Driver.
- e) **E-Z Clip:** Keeps cable tight to the installation surface. Stainless steel bracket used on all types of installation surfaces. E-Z Clip 1/8" (3.7 mm) mounting holes for fasteners (not supplied).

- f) **Hammer-On Flange Clips:** Available in black oxide coated steel or stainless steel. Hammer-On Flange Clips routes the Net Cable parallel to the outer edges of beams or other structural steel flanges. Contact Nixalite for installation guidelines.
- g) **Stainless Steel Angle Bracket:** A stainless-steel angle bracket with two (2) holes one for mounting the other for the cable. Fasten with the appropriate fastener (not supplied).
- h) **Stainless Steel J-Clamp:** A J-shaped strap of stainless steel with mounting and cable guide holes. Fasten with the appropriate fastener (not supplied).

#### F: Finishing Hardware:

- a) Net Rings: Two types of stainless steel net rings to attach the netting mesh to the cables, to join two pieces of netting and to fasten the Net Zippers to the netting. Net ring quantity requirements per attachment:
  - **Netting to Cable**: 16 net rings per foot (each netting mesh).
  - **Lapped Seams**: 32 net rings per foot (1 ring per mesh on each side of seam).
  - Net Zipper Installation: 32 net rings per foot (1 ring per mesh on each side of zipper).
- b) **Net Zipper:** Allows for access to areas behind the bird netting installation. Available in both black and tan and in 2 ft. (61 cm), 4 ft. (122 cm), 6 ft. (183 cm) and 8 ft. (244 cm) lengths. Heavy duty, marine-grade, Net Zipper with 3/4" (1.9 cm) heavy fabric tape, one fixed end and open top with auto lock slider.

#### 2.4 - SURFACE SANITIZING AND DEODORIZING

- A. Nixalite of America Inc offers several different broad spectrum surface sanitizers and deodorizers to help protect your people from the hazards of pest bird waste. Contact Nixalite for recommendations on the proper sanitizing product for your application.
- B. **Safety Equipment:** Nixalite offers personal protection equipment (PPE) to protect personnel from the hazards related to pest bird and animal waste materials. Contact Nixalite for details.

## **PART 3 - EXECUTION**

#### 3.1 - INSPECTION

- A. Visually inspect the installation surfaces that will receive the netting hardware and the areas that will end up behind/inside the netting installation. Note damaged surfaces or incomplete construction that could compromise the bird netting enclosure.
- B. Note all areas, surfaces or objects that may require maintenance or periodic replacement after the bird netting is installed (i.e. lights, electrical equipment, etc.). Use the appropriate netting accessories to allow access behind the installed netting system.
- C. Note any objects or conditions that could damage the installed bird netting. Install the K-Net HT Bird Exclusion Netting in such a manner as to avoid these conditions.

## 3.2 - PREPARATION

- A. Verify the dimensions for each area specified for enclosure with the K-Net HT Bird Exclusion Netting. Use manufacturers Planning Guides to verify that sufficient quantities of bird netting and net hardware will be installed at each location specified for bird netting.
- B. Make sure all installation surface finishing requirements have been accomplished before installing the K-Net HT Bird Enclosure Netting. Bird Exclusion Netting is to be the last item installed on each specified surface. Do not apply any surface coating or treatment (paint, sealer, etc.) over or on the installed K-Net HT Bird Exclusion Netting or the mounting hardware.

#### 3.3 - SURFACE CLEANING

A. All surfaces to be clean, dry and free of obstructions before the K-Net HT Bird Exclusion Netting is installed.

#### B. If Bird Waste Is Present:

Treat, neutralize and safely remove all bird waste from installation surfaces. Installer must follow all municipal, state and federal regulations regarding the proper removal and disposal of bird droppings and waste materials such as nests and dead birds.

- C. Use Nixalite's surface cleaning products to neutralize any bird droppings, nests and related waste materials that may be present. Strictly follow treatment instructions provided with Nixalite's surface cleaning products.
- D. Use Nixalite cleaning products to help prevent disease transmittal when working around surfaces contaminated with bird droppings.

#### 3.4 - INSTALLATION

- A. Install K-Net HT Bird Exclusion Netting as recommended by the manufacturer. If necessary, cut the net to fit the area. If multiple pieces are needed, join the pieces together with the recommended joining hardware.
- B. Install K-Net HT to avoid contact with machinery, vehicles, extreme heat, tree branches, etc. Make necessary adjustments to keep netting a sufficient distance from these objects or conditions.
- C. Finished K-Net HT installation to be taught, free of wrinkles, gaps and openings.

## 3.5 - ADJUSTMENTS / CLEANING

- A. Remove installation debris and waste from project site. Inspect finished installation. Make any adjustments needed to conform to installation guidelines.
- B. K-Net HT Bird Exclusion Netting is a physical and passive barrier. It relies on optimal placement and proper installation. Exclusion netting must block off or seal up all routes and paths that pest birds follow to their preferred roosts.
- C. Note any holes, gaps or openings in the bird net installation that birds can use to bypass or get around the netting barrier. Correct these conditions immediately.

#### 3.6 - POST INSTALL

- A. Contractor to provide the **Nixalite Certificate of Authenticity** issued by Nixalite of America Inc after ordering the K-Net HT Bird Exclusion Netting. This provides information that will be required to receive project close out documentation.
- B. Contractor to provide any manufacturer post installation maintenance documentation for the K-Net HT Bird Exclusion Netting and tensioned cable system.

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