

[www.UnitedControls.com](http://www.UnitedControls.com)

## NukeTape®

### VERSATILE

*NukeTape®* is capable of insulating any terminal or splice without any additional or special jacketing. It is oil and sand resistant and can be completely immersed in water without any absorption.

### TOUGH

*NukeTape®* survives the grueling qualification testing required by the nuclear industry.

### Goes On EASY

*NukeTape®* adheres easily to any surface, including itself, and requires nothing more than a pocketknife for quick application.

### Comes Off CLEAN

*NukeTape®* is easily removed from any surface and leaves behind no residue.

### Cost-Effective

*NukeTape®* offers all of the advantages above at a price far below heat-shrink products.

## About...

### UCI-003XS

- NUCLEAR QUALIFIED SPLICING TAPE
- Qualified for use in all Safety Related, Harsh environments within Nuclear Power Plants.

### UCI-004XS

- NON-SAFETY SPLICING TAPE
- The Commercial Grade equivalent of UCI-003XS, intended for use in demanding commercial, industrial and military applications.

### NukeGoop®

- An equivalent compound to UCI-004XS, NukeGoop is a conformable material for filling air gaps and uneven surfaces.

# NukeTape® Technical Data

United Controls International  
Silicone Rubber-Extruded Tape  
P/N: UCI-003XS

Typical Properties – Electrical and Mechanical

PROPERTY	METHOD	NOMINAL REQUIREMENTS
Dielectric Strength (Short Time, ¼” Electrodes)	ASTM D-2148	300 Volts per Mil
Tensile Strength	ASTM D-1708 or ASTM D-3759	800 PSI Minimum
Elongation	ASTM D-1708 or ASTM D-3759	300% Minimum
Water Absorption	MIL A -A-59163A and Fed. Std.601, Method 6251	3% Maximum
Bond Strength (Fusion)	ASTM D-2148	Tape shall not unwind more than 2” after 3 minutes with an attached 600g weight

## TYPICAL TAPE CHARACTERISTICS:

- *Self-bonding – No Adhesive or Added Heat Required*
- *Excellent Thermal Resistance – Up to 400°F Continuous Use*
- *Waterproof – Less than 3% Water Absorption (MIL A-A-59163A and Fed Std 601 method 6251); 48-hour Immersion*
- *Arc-Track Resistant*
- *Weather and Ozone Resistant (-60°F to 400°F)*
- *Material: Modified Silicone Rubber (composition verified on every manufacturing run via DSC testing)*

## TAPE QUALIFICATION SUMMARY:

The subject electrical tape has completed environmental qualification testing in accordance with the intent of IEEE 383-1974 and is considered qualified for harsh environment applications both inside and outside containment. Environmental Parameters include:

- *Qualified Life at 178°F for 40 years (Thermal Aging of >150° for 380 hours, Activation Energy of 1.22eV)*
- *Radiation Exposure Total Integrated Dose of 2.0 x 10<sup>8</sup> Rads for 5KV splices and a TID of > 1.18 x 10<sup>8</sup> Rads for all other splice configurations*
- *LOCA/HELB Simulation*
- *In Addition to these tests, the tape has successfully passed IEEE 383 flame testing, submergence testing in 90°C water for 30 days, and a short time steam test at 400°F. This testing is documented in UCI Nuclear Qualification Test Report NQR-UCI-003XS, Revision 1.*

## TAPE DESCRIPTION:

- *Color – Blue with white apex color line*
- *Standard Roll Length – 12 yards*
- *Release Liner – 0.003” thick red polyester film*
- *Cores – 1-1/4 inch diameter, 1-1/8 inch wide, 1/8 inch thick*
- *Tape Nominal Dimensions - 1” wide, 0.040” thickness at apex, 10-30 mil thickness at edges*
- *Sold in cases of 24 rolls*

\* This document is a summary of information and is uncontrolled. Please contact your UCI sales representative for more information.