

## Certificate of Analysis

This lot of product meets the accepted performance criteria recommended in the USP, ISO 11138-1 and ISO 11138-4.

Product Name: Spore Threads For use in Monitoring: Dry Heat

Organism: Bacillus atrophaeus Derived from: ATCC<sup>©</sup> 9372

A25-00 REF TA-06DH Quantity: 100 Threads

2021-01-01 2023-01-01 (YYYY-MM-DD)

Performance Characteristics					
Population:	1.0x 10 <sup>6</sup> per Thread				
D value		Survival	Kill		
Dry Heat <i>D</i> value (160°C):	2.0 minutes	8.0 minutes	20.0 minutes		
The <i>D</i> value(s) were determined per the fraction negative method and are reproducible only when exposed and cultured under the exact conditions used to obtain results reported above. The user would not necessarily obtain the same results, therefore, should determine the suitability for their particular use.					
z value: 49.3°C	Based on <i>D</i> value determinations at 150°C, 160°C and 180°C.				

## Recovery

After exposure to the sterilization process, aseptically transfer each carrier to an individual tube containing 5-15 mL of Soybean Casein Digest Broth (SCDB). Incubate at 30° - 40°C for a minimum of 7 days or per validated reduced incubation time.

Examine tubes for growth, daily or as frequently as possible. Tubes showing typical growth of *Bacillus atrophaeus* will display a pellicle at the top of the media which is cream to orange in color.

Purity: Shall not contain any contamination that would adversely affect the performance or the stability characteristics of the biological indicator.

Storage and Shelf Life					
+15°C	Room Temperature (15° - 30°C)	*	Keep away from sunlight		
20%	20% to 80% Relative Humidity	**	Protect from heat, radioactive sources, and sterilizing agents		
Shelf Life	24 Months from the date of manufacture				

Disposal: Autoclave, steam at 121°C for not less than 30 minutes, or incinerate (standard microbial waste; non-pathogenic species).

March 22, 2021

QUALITY ASSURANCE APPROVAL DATE

Manufactured by: T: 419-476-7119

True Indicating LLC 946 Kane St, Suite A E: info@trueindicating.com

Toledo, Ohio 43612

www.trueindicating.com