

## Flammability of Clothing Textiles Final Report

Test Article: 190  
 Purchase Order: 30899  
 Study Number: 1284793-S01  
 Study Received Date: 04 Apr 2020  
 Testing Facility: Nelson Laboratories, LLC  
 6280 S. Redwood Rd.  
 Salt Lake City, UT 84123 U.S.A.  
 Test Procedure(s): Standard Test Protocol (STP) Number: STP0073 Rev 06  
 Customer Specification Sheet (CSS) Number: 202002072 Rev 01  
 Deviation(s): None

**Summary:** This procedure was performed to evaluate the flammability of plain surface clothing textiles by measuring the ease of ignition and the speed of flame spread. The parameter of time is used to separate materials into different classes, thereby assisting in a judgment of fabric suitability for clothing and protective clothing material. The test procedure was performed in accordance with the test method outlined in 16 CFR Part 1610 (a) *Step 1 - testing in the original state. Step 2 - Refurbishing and testing after refurbishing*, was not performed. All test method acceptance criteria were met. Testing was performed in compliance with US FDA good manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820.

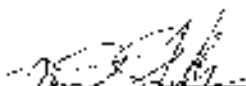
Test Article Side Tested: Outside Surface  
 Orientation: Machine

**Test Criteria for Specimen Classification (See 16 CFR Part 1610.7):**

Class	Plain Surface Textile Fabric
1	Burn time $\geq 3.5$ seconds
2	Not applicable to plain surface textile fabrics
3	Burn time $< 3.5$ seconds

The 16 CFR Part 1610 standard specifies that 10 replicates are to be tested if, during preliminary testing, only 1 test article exhibits flame spread and it is less than 3.5 seconds or the test articles exhibit an average flame spread less than 3.5 seconds. Five replicates are to be tested if no flame spread is observed upon preliminary testing, if only 1 test article exhibits flame spread and it is equal to or greater than 3.5 seconds, or if the average flame spread is equal to or greater than 3.5 seconds. In accordance with the standard, 5 replicates were tested for this study.



  
 Study Director

For  
 Curtis Gerow, B.S.

04/21/2020  
 Study Completion Date



1284793-S01

**Results:**

Replicate Number	Time of Flame Spread
1	DNI
2	DNI
3	DNI
4	DNI
5	DNI

DNI = Test Article did not ignite