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ISO 9001:2008 Registered Manufacturer

Ultra CarbonKnight

Material Content: 65% Oxidized Polyacrylonitrile (OPF)/ 35% artificial tri-blend
Material Construction: 1 x 1 Thermal Knit (waffle weave)
Material Weight: 6.5 oz / yd^2 (+1 / -.5)
Material Color Black (Standard)
Color Options Available

FABRIC PERFORMANCE VALUES

THERMAL PROTECTIVE PERFORMANCE (TPP)		
	2 ply - as received	33.9 cal/cm^2
	2 ply - after 5 washes	
HOOD MATERIAL BURST STRENGTH		
		331 N
FLAME RESISTANCE TEST		
After Flame	as received	0 seconds
	after 5 washes	0 seconds
Char Length (wales x cour	as received	4 mm x 4 mm
	after 5 washes	5 mm x 4 mm
CLEANING SHRINKAGE RESISTANCE TEST		
Hood Measurement		2%
Face Opening Measurement		4%
HEAT AND THERMAL SHRINKAGE RESISTANCE TEST		
Hood Measurement	as received	3%
	after 5 washes	3%
Face Opening Measureme	as received	3%
	after 5 washes	1%
SEAM BREAKING STRENGTH TEST		
		760 N
MELT, DRIP, IGNITE, SEPARATE WHEN EXPOSED TO FLAME		
		None
ARC THERMAL PERFORMANCE VALUE (ATPV)		
	1 ply	
	2 ply	
HEAT ATTENUATION FACTOR (HAF)		
	1 ply	
	2 ply	

4th generation advanced CARBON technology
3 elements needed for fire = Oxygen, Heat, and Fuel
Without one element, a fire cannot start or continue
When exposed to flame, CarbonKnight fibers expand,
creating an Oxygen starved environment
so fire cannot continue. Material is self extinguishing
Inherently flame resistant (no harsh chemical treatments)
Odor neutralizing, Anti-Static, Low Heat Conductivity
Maintains performance values after laundering
Finished to minimize shrinkage
Thermal Knit (waffle knit) allows for air layer of protection

Majestic Fire Apparel is a vertical manufacturer
Knitting our own fire retardant materials for over 16 years
We knit, cut, sew, and ship - all from our location in PA
MADE IN USA

NFPA 70E PERFORMANCE SPECIFICATIONS OF
ASTM F 1959/F 1959M-06ae1:
HRC Level 1 = minimum 5 cal/cm^2 to 7 cal/cm^2
HRC Level 2 = minimum 8 cal/cm^2 to 24 cal/cm^2
HRC Level 3 = minimum 25 cal/cm^2 to 39 cal/cm^2
HRC Level 4 = minimum 40 cal/cm^2 and over

Meets CAL-OSHA Requirements
Passes Federal Test 191, Method 5903.2; CAL OSHA Sections 3406(d)
Complies with OSHA Rule 29 CFR Part 1910, 269

Fabric Performance Values in accordance with NFPA 1971-2013 test report dated 9/9/2014 performed by Underwriters Laboratories
ATPV and HAF values found in accordance with ASTM International Standard Test Method F1959-1999. Tests performed by Hugh Hoagland
all weights and measurements are approximate