

PGI quilted BarriAire composite fabric recently achieved Viral Filtration Efficiency (VFE) Rating of 96.8% and Bacterial Filtration Efficiency (BFE) Rating of 97.9%\*

# The **ONLY** Particulate Barrier Hood that **Feels** Barrier-less

**COBRA™**  
**BarriAire**  
Particulate Barrier Technology  
**GOLD HOODS**



Can less really be more? Only if it's a COBRA™ BarriAire™ Gold Hood. Fact is, in wear trials firefighters found the weight, breathability and feel comparable to that of a traditional hood. Additionally, BarriAire Gold Hoods are not loud like PTFE laminated hoods, which can adversely affect a firefighter's ability to communicate and situational awareness. And, BarriAire Gold Hoods offer more protection from harmful particles and contaminants in the areas that pose greatest risk of exposure. BarriAire Gold Hoods combine an outer layer of PGI proprietary gold FR fabric and an inner layer of ultra-lightweight, DuPont™ Nomex® Nano Flex fabric, which can inhibit penetration of many small size harmful particles. BarriAire Gold Hoods combine superior comfort, increased protection and maximum durability. Your fire hood is an investment in your health and safety — go for the gold, BarriAire Gold Hoods only from PGI.

\*As conducted by Nelson Labs, U.S.A.

PPE REDEFINED





**Style: 39701-00-194071 Critical Coverage**  
**with Extended Bib and Rib Knit Face Opening**

Particulate coverage from base of the neck and around entire head except for Sure-Fit™ panel at crown. All critical areas of particulate penetration as identified by NFPA have particulate barrier.



Certified to NFPA 1971 - Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting - Current Edition

EN13911: 2017

**The Difference is in the Details**

**Proprietary PGI Gold FR Fabric**

Excellent heat, flame and thermal resistance with superior tensile and tear strength for longer wear life. Easy to wash/dry with extremely low shrinkage after repeated launderings. Attractive gold color easily detects soiling to signal cleaning.

**Stronger Stitching**

Quilted with CRAQ SPUN® AR Teijinconex® thread which has twice the strength of typical meta-aramid thread. Quilting stabilizes and enhances particulate barrier durability.

**Hear the Difference**

Unlike laminated PTFE barrier hoods, BarriAire™ Gold Hoods are quiet and allow unrestricted hearing. Laminated PTFE hoods are loud and make a crackling noise with virtually every movement, adversely affecting communication and situational awareness.

**Particulate Blocking Power**

Lightweight inner layer of DuPont™ Nomex® Nano Flex fabric inhibits penetration of harmful contaminants and carcinogenic particulates between 0.1 and 1.0 microns. Averages 96% particulate filtration efficiency as submitted and washed. PGI quilted BarriAire composite fabric recently achieved Viral Filtration Efficiency (VFE) Rating of 96.8% and Bacterial Filtration Efficiency (BFE) Rating of 97.9%\*.

**Exclusive DWR Finish**

Outer shell has durable water repellent finish for superior soil and water repellency with outstanding stain-release performance. Reduces build-up of toxic residue that is easily absorbed by non-treated fabrics and allows hood to dry 2x-3x faster.

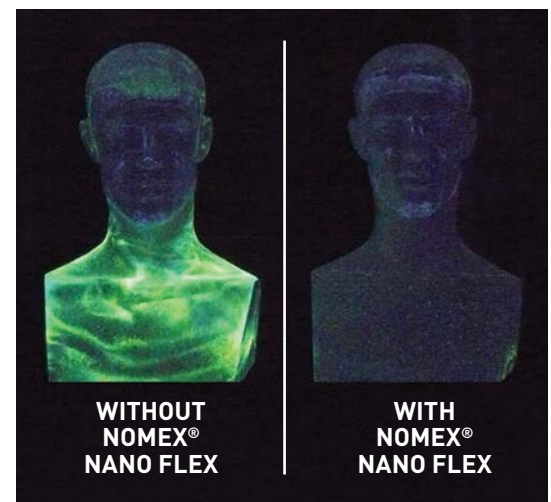
**Exceptional Breathability and Comfort**

Unlike PTFE particulate barrier hoods, which have virtually no air permeability and lock in air, PGI's BarriAire™ Gold Hoods have excellent breathability, reducing the potential for heat stress while pulling moisture away from the skin to the outer shell where it can evaporate keeping you drier.

**ID Label**

UL Certified thermal patch label facilitates tracking and identification through barcoding, sequential numbering and personalization.

**Fluorescent Aerosol Screening Test**



FAST UV-light photographs without Nomex® Nano Flex (left) and with Nomex® Nano Flex (right) illustrating after particle exposure for the test subject's head and neck; bright yellow areas show where particles penetrated the ensemble.

Above test performed on complete coverage hood without turnout coat. Test was performed at RTI (Test #2322, DOD Test Operations Procedure 10-2-022 modified for head form). These conditions may not be typical of the conditions encountered in actual situations. The results of these tests are only predictions under these specific laboratory conditions. The user is solely responsible for any interpretations of the test data provided by DuPont. DUPONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE AND ASSUMES NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION. This data is not intended for use by the user or others without expressed written consent of DuPont.

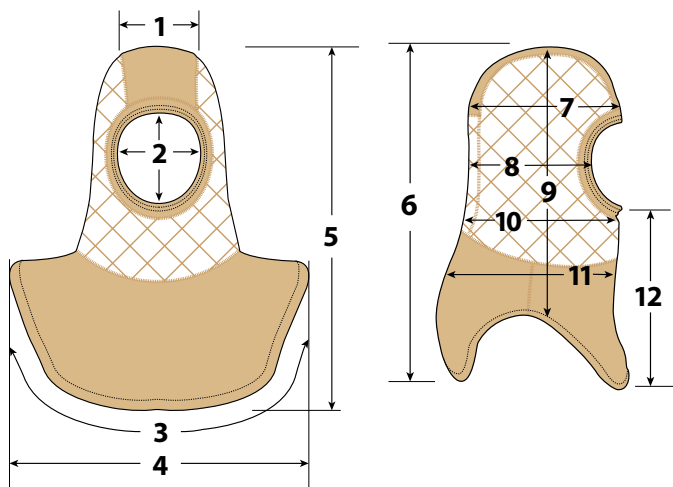
DuPont™  
**Nomex Nano Flex**



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\*As conducted by Nelson Labs, U.S.A.

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**39701-00-194071 Critical Coverage  
 with Extended Bib and Rib Knit Face Opening**

**HOOD DIMENSIONS - ONE SIZE HOOD FITS MOST**

1. Sure-Fit™ panel 4" wide from top of face opening and extends to where bib is attached, in place of traditional center seam.
2. Face opening is circular and measures between 4.6" to 5.6" in diameter.
3. Width around bottom (1/2) approx. 31.5".
4. Width of hood from edge of shoulder cap to opposite edge of shoulder cap approx. 21".
5. Front length of hood from top to bottom approx. 23".
6. Back length of hood from top to bottom approx. 21.5".
7. Width of hood above face opening approx. 10".
8. Width of hood mid face opening to back approx. 9.5".
9. Length of hood at side from top to bottom approx. 21".
10. Width of hood 1" below bottom of face opening approx. 12".
11. Width of hood above shoulder cap approx. 16".
12. Length of hood below face opening approx. 14.5".
  - Rib knit around face approx. 2"
  - Quilted approx. 4.5"
  - Rib knit drape approx. 8"

**FABRIC DESCRIPTION**

3-Layer quilted composite Durable Water Resistant finish on exterior layer of jersey knit with Nomex® Nano Flex particulate barrier between the layers of jersey knit. Averages 96% particulate filtration efficiency as submitted and washed. PGI quilted BarriAire composite fabric recently achieved Viral Filtration Efficiency (VFE) Rating of 96.8% and Bacterial Filtration Efficiency (BFE) Rating of 97.9%\*.

**DURABLE WATER RESISTANT FINISH**

Outer shell fabric features a proprietary DWR finish which allows hood to dry 2x-3x faster than non-treated fabrics, reduces build-up of toxic residue that is easily absorbed by non-treated fabrics and enhances the release of contaminants during washing.

\*As conducted by Nelson Labs, U.S.A.

**SPECIFICATIONS**

**STITCH TYPES AND SEAMS**

- All stitching conforms to Federal Standard 751 Specifications (FED-STD-751).
- Major seams are flat seam assembled with stitch type 607.
- Elastic around face opening is serged in with stitch type 504 and reinforced with bottom cover-stitch type 406.
- Binding is applied with bottom cover-stitch type 406.

**CONSTRUCTION**

- Quilted 3-layer composite BarriAire™ Gold fabric with rib knit around face opening, on bib, and on crown of head.
- Sure-Fit panel provides improved comfort, fit and performance. Rib knit panel, 4" wide, begins at face opening and extends 11" over the crown of head. Quilted Sure-Fit panel then extends to the bib seam.
- For contoured fit, hood is seamed from top of face opening to the bib seam.
- Face opening is circular and serged with x-heavy duty 1/2" wide elastic around the perimeter. The elastic is then folded under 1/2" and cover-stitched. The face opening stretches to 16" (25% more than conventional hoods) for easy donning and a snug fit around face of SCBA mask. Face opening maintains original shape after repeated laundering.
- Extra-large design rib knit bib begins at neck seam for complete shoulder coverage and is contoured for a smoother drape.
- Bottom hem of hood is bound with self-material bias binding.

**LABELING AND USER INFORMATION**

- UL Certified FR label facilitates tracking and identification through barcoding, sequential numbering and personalization.
- "PROPERTY OF: \_\_\_\_\_" feature allows user to simply write their name with permanent laundry marker directly on label for permanent identification.
- Each hood is clearly labeled to identify material contents, NFPA acceptance, UL Classification, Date of Manufacture, Lot Tracking Number, Style Number, Statement of Made in USA and care instructions.
- Each hood includes a complete user information guide.

**MEETS OR EXCEEDS INDUSTRY STANDARDS**

- UL Classified to meet or exceed the current hood requirements of NFPA 1971, Standard on Protective Ensemble for Structural Firefighting.
- UL Certified to the NFPA 1971, 2018 Edition Option for Particulate Protection.
- EN13911: 2017
- Meets NFPA 70E and ASTM F1506 Requirements



**ARC FLASH  
 RESISTANT**

**3-LAYER QUILTED COMPOSITE  
 ATPV 46 - HRC 4**

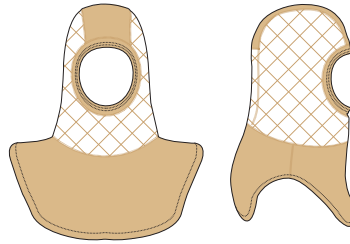
**2-LAYER RIB KNIT  
 ATPV 31 - HRC 3**

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**Style: 39701-00-194071 Critical Coverage**  
with Extended Bib and Rib Knit Face Opening



- BarriAire Gold Quilted FR Composite
- PGI Gold FR Rib Knit

ISO 9001: 2015 Registered Manufacturer

**FABRIC DESCRIPTION**

Quilted Composite durable water resistant finish on exterior layer of jersey knit with Nomex® Nano Flex particulate barrier between the inside layer of jersey knit. Averages 96% particulate filtration efficiency as submitted and washed. PGI quilted BarriAire composite fabric recently achieved VFE Rating of 96.8% and BFE Rating of 97.9%\*.

Fabric Performance Values	NFPA 1971 Requirements	Critical Coverage
<b>Particulate Efficiency</b>		
■ As Submitted & Washed Average	≥ 90%	96%
<b>Viral &amp; Bacterial Filtration Efficiency*</b>		
■ Viral Filtration Efficiency (VFE)	N/A	96.8%
■ Bacterial Filtration Efficiency (BFE)	N/A	97.9%
<b>Thermal Protective Performance (TPP)</b>		
Rib Knit		
■ As Received	≥ 20.0 (min)	30.2
■ After 5 Washings	≥ 20.0 (min)	33.1
Quilted Composite		
■ As Received	≥ 20.0 (min)	29.3
■ After 5 Washings	≥ 20.0 (min)	30.8
<b>Total Heat Loss (THL)</b>	≥ 325 W/m <sup>2</sup>	401.3 W/m <sup>2</sup>
<b>Hood Material Burst Strength</b>	≥ 225 N	614 N
<b>Flame Resistance Test - Quilted Composite</b>		
After Flame (Wales x Courses)		
■ As Received	≤ 2.0 sec	0.0 sec x 1.0 sec
■ After 5 Washings	≤ 2.0 sec	1.0 sec x 1.0 sec
Char Length (Wales x Courses)		
■ As Received	≤ 100 mm	18 mm x 17 mm
■ After 5 Washings	≤ 100 mm	3 mm x 2 mm
<b>Cleaning Shrinkage Resistance Test</b>		
Hood Measurement		
■ After 5 Washings	≥ -5%	-0.7%
Face Opening Measurement		
■ After 5 Washings	Meets Requirement	YES
<b>Heat &amp; Thermal Shrinkage Resistance Test</b>		
Hood Measurement		
■ As Received	≥ -10%	0%
■ After 5 Washings	≥ -10%	0%
Face Opening Measurement		
■ As Received	Meets Requirement	YES
■ After 5 Washings	Meets Requirement	YES
<b>Seam Breaking Strength Test</b>		
■ Quilted to Quilted	≥ 181 N	1064 N
■ Quilted to Knit	≥ 181 N	1325 N
<b>Melt or Drip When Exposed to Flame</b>	No Melting or Dripping	NONE

\*Viral and Bacterial Filtration Efficiencies as conducted by Nelson Labs, U.S.A. All other test results as conducted by UL LLC. UL Classified to meet or exceed the current hood requirements of NFPA 1971 Standard on Protective Ensemble for Structural Firefighting – 2018 Edition. EN 13911:2017

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# FIREFIGHTING HOOD INSPECTION, CARE & MAINTENANCE GUIDE



## INSPECTION OF YOUR PROTECTIVE HOOD

Though most performance properties of the protective hood cannot be tested adequately in the field, OSHA regulations require your department or employer to regularly inspect your protective ensemble and other safety equipment. Your fire department should have a systematic, routine and regularly scheduled inspection of your protective ensemble and equipment. Full documentation of these inspections should be kept.

## CLEANING AND MAINTENANCE OF YOUR PROTECTIVE HOOD — WARNING!

- You must keep your hoods clean and maintain them as set forth in their labels and the manufacturer's instructions.
- Clean your hood as soon as possible after an incident where it has been soiled or exposed to blood or body fluids, tars, fuels, resins, paints, acids, by-products of combustion or other hazardous materials. Do not wear your hood again until it has been properly cleaned. If hood cannot be properly cleaned, you must retire and dispose of the hood.
- Hoods should be washed in regular detergent in warm water not to exceed 105°F / 40°C, rinsed with cold water.
- Use a liquid detergent such as Tide vs a powder detergent to minimize pilling.
- Do not use chlorine bleach or detergents containing chlorine bleach. Chlorine bleach will compromise the protective qualities provided by the fabrics used in the manufacturing of this hood.
- Hoods should be laundered with like products, i.e. other flame-resistant knits such as other FR hoods, knit FR shirts, etc.
- FR apparel should never be laundered with non-FR fabrics due to lint from the non-FR fabrics potentially contaminating the FR fabrics.
- Do not wring hoods to dry, squeeze hood to remove excess water.
- For maximum wear life, shape and lay flat in a dry, shaded location to dry. If machine drying is required, use "gentle cycle with low heat" and remove from dryer while still damp and finish with air dry. Do not over dry hood.
- Do not commercially dry clean.
- Before and after every fire ground use or training exercise, your hoods should be inspected. All damaged protective hoods must be retired and disposed. Any physical change in any component should be immediately referred to personnel to determine if your hood's protective qualities have been in any way compromised.
- In the event of either questionable appearance or characteristics, caution should prevail and the protective hood should be replaced.

## MAINTENANCE AND REPAIRS

Repair is generally not practical (or recommended) considering the cost of new hoods. If repair is desired, refer to the manufacturer or to a facility capable of making repairs consistent with the original manufacturer. PGI does not warranty any hood in which repairs have been made without the specific written permission or inclusion of PGI, Inc.

## WARRANTY INFORMATION

Your protective hood is warranted by the manufacturer to be free from defects in material and workmanship. This warranty does not cover normal wear or unusual exposures. This warranty is in lieu of all other warranties, express or implied, including but not limited to, implied warranties of marketability and/or fitness for a particular purpose. The manufacturer shall not be liable for incidental or consequential damages.



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# YOUR FIRE HOOD IS AN INVESTMENT IN YOUR HEALTH & SAFETY



In an effort to aid fire departments with the inspection of their firefighting hoods as well as the Nomex® Nano Flex particulate barrier, the following two-step process is recommended.

## STEP 1

Begin by following NFPA 1851 – Current Edition Guidelines for Firefighting Hoods:



6.3.5.2 Hood elements shall be inspected for the following:

1. Soiling
2. Contamination
3. Physical damage such as follows:
  - a. Rips, tears, and cuts
  - b. Thermal damage (charring, burn holes, melting, discoloration of any layer)
4. Shrinkage
5. Loss of material elasticity or stretching out of shape
6. Loss of seam integrity and broken or missing stitches
7. Loss of face-opening adjustment
8. Label integrity and legibility

8.1.1 All repairs shall be performed by the original manufacturer, a verified ISP who has received training, or a member of the organization who has received training.

After completing the NFPA 1851 – Current Edition guidelines for advanced inspection of hood elements, PGI recommends the following for particulate barrier inspection.

## STEP 2

1. The 3-ply composite fabric, Nomex® Nano Flex particulate barrier quilted between jersey knit BarriAire Gold fabrics, can be easily inspected with a flashlight for structural integrity to identify rips, tears, and cuts.
2. Please be advised that the quilting holes you see are not detrimental to particulate barrier performance, Nomex® Nano Flex fabric with our quilting blocks on average 96% of particulate as submitted and washed. PGI quilted BarriAire composite fabric recently achieved Viral Filtration Efficiency (VFE) Rating of 96.8% and Bacterial Filtration Efficiency (BFE) Rating of 97.9%\*.
3. Any necessary advanced evaluations of Cobra BarriAire Gold hoods shall be conducted by PGI through the return authorization process in accordance with PGI's ISO 9001 certification. Please call Customer Service at 800-558-8290 for all return inquiries.



Nomex® Nano Flex  
Good Condition



Nomex® Nano Flex  
Overlapped Good Condition



Tear in Nomex® Nano Flex

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