



DEFENSE LOGISTICS AGENCY

THE NATION'S COMBAT LOGISTICS SUPPORT AGENCY



**Product Test Center
Analytical**

**Jamie Hieber
Manager**





Product Test Center Analytical



- Product Test Center Analytical (PTC) was realigned to DLA Troop support from Land & Maritime 1 Oct 2017
- Below are the various tests performed by the PTC:
 - **TEXTILES** - complete testing for chemical and physical properties of textile end items and components.
 - **CHEMICAL ANALYSIS** - quantitative and qualitative analysis of finishes, material identification, and pH testing.
 - **METALLURGICAL** - dimensional and microscopic surface measurements utilizing instrumentation such as coordinate measuring machines, optical comparator and metallograph, complete wet chemical and instrumental analysis of alloys.
 - **REAGENT/CHEMICAL** - shelf-life testing of chemicals and routine analysis of compounds and reagents for purity.
 - **COLOR SCIENCE** - instrumental and visual color evaluations.
 - **OPTICAL TESTING** - measurement of optical properties.
 - **IFF/NIR** - force protection testing.
 - **OTHER TESTING** - includes leather, paper, rubber, plastics, etc.

Chemical Analysis



Physical Textile Testing



Shade Evaluation





What Does This All Mean



- Sustainment conformance testing
- Are our contractors giving us what we require?
- Contract Data, Specifications, Test Methods
- Lab is staffed by Chemists, Textile Technologists, Equipment Specialists, Management Analyst, QAS, Supervisor Scientists
- All testing is performed according to requirements set by the services, under the harshest conditions, and tested to destruction
- That's right, everyday our lab is engaged in destroying items for the Warfighter.
- We do it for the best cause of all, to protect the Warfighter!



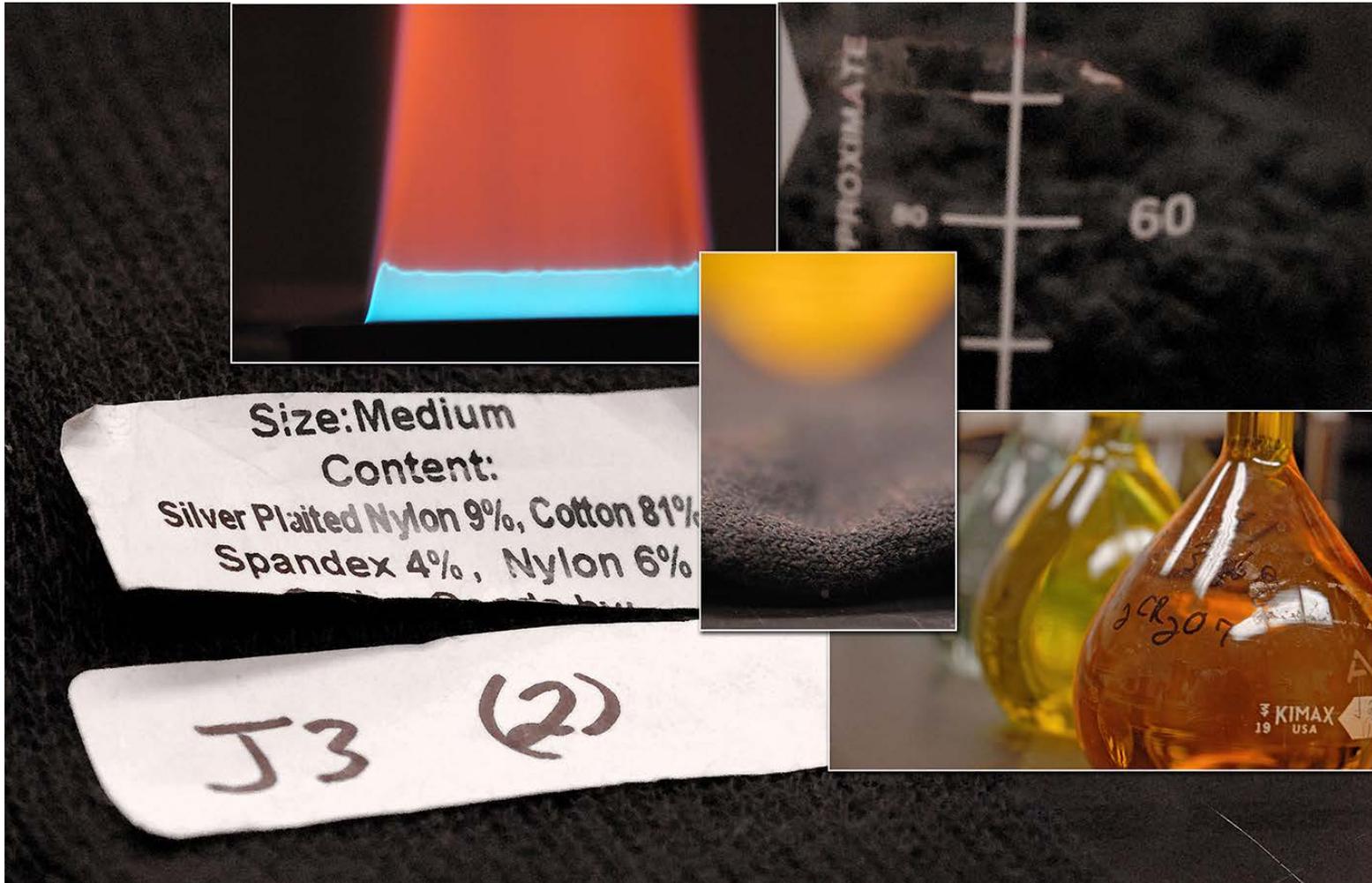
DPSCM 4155.3 and Source Sampling



- Product Test Center delegated responsibility by C&T
- If included in DLA C&T contracts
 - Notify assigned lab specialist at least 10 days prior to DCMA QAS inspection
 - Product Test Center may request side-by-side samples
 - DCMA QAS randomly selects rolls for contractor testing
 - Test reports with completed and DCMA QAS signed DD1222 sent to paactlab@dla.mil for review



Chemical Testing





Chemical Testing / NIR Testing



"A uniform glowing in the dark is just as critical as a misfiring bullet."





Metals Testing



While advanced research touts new approaches to parts manufacturing such as 3D printing, PTC's metals testing lab ensures consistent quality for metal parts required for everything from bolts and washers to specialized custom parts.

Fuel nozzle nuts
for military fuel engine



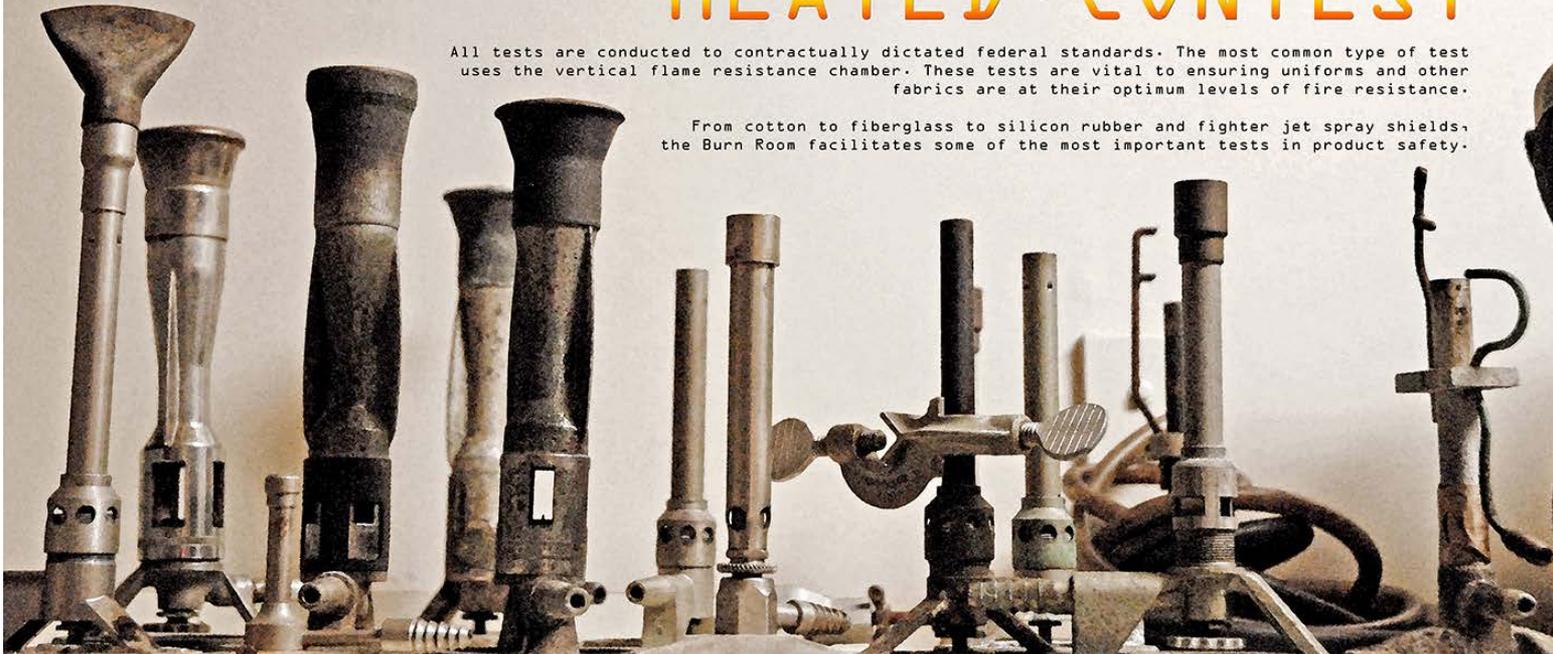
Physical Equipage Testing



HEATED CONTEST

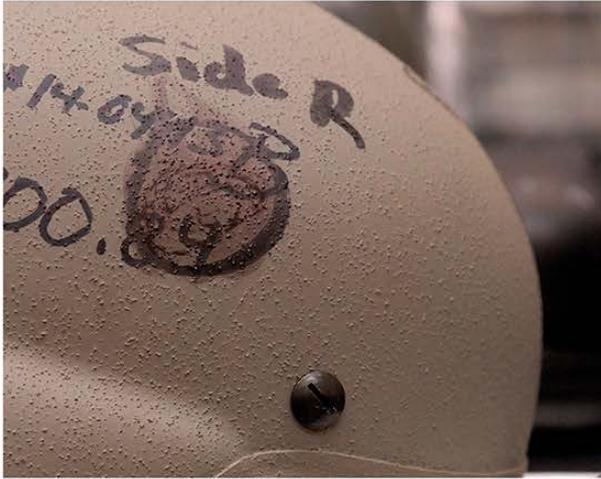
All tests are conducted to contractually dictated federal standards. The most common type of test uses the vertical flame resistance chamber. These tests are vital to ensuring uniforms and other fabrics are at their optimum levels of fire resistance.

From cotton to fiberglass to silicon rubber and fighter jet spray shields, the Burn Room facilitates some of the most important tests in product safety.





Physical Equipage Testing



BLUNT IMPACT TESTER

Ensuring soldier safety by inspecting and testing helmet components and products that mitigate blunt force trauma



Physical Textile Testing



LAST TEST FOR INTEGRITY

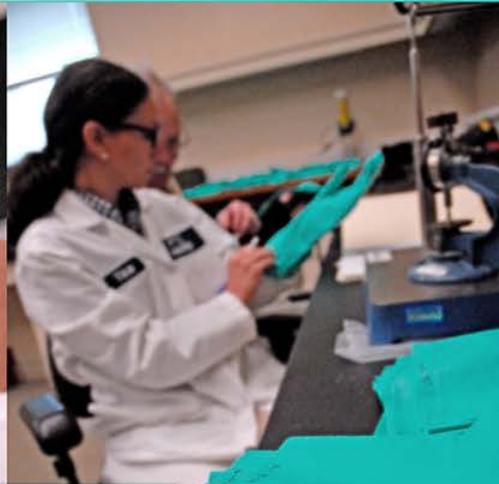


In this test, a lab specialist gauges the integrity of taped seams of the Air Force Environmental Parka for water permeability and appearance, before and after laundering.

The seams are tested for hydrostatic resistance to determine if the seams leak under low water pressure. Additional inspection reveals tape ends integrity to determine tape ends lifting.



Physical Textile Testing



HANDLE WITH CARE OTTO Fuel Gloves

In order to pass inspection, nitrile "OTTO Fuel" chemical resistant gloves must demonstrate resistance not only to the correct class of chemicals, but also to wear and tear and repeated handling -- while maintaining a comfortable fit.

Every product in use by the military, no matter how niche or specialized, is subjected to expert testing.



Shade Evaluation



To Work as a Color Scientist at DLA you need to meet multiple conditions:

- A Degree in Chemistry (any type, we're not picky), or Textile Technology, or Textile Engineering
- Superior Color Vision (20 or below on the Farnsworth Munsell 100 Hue Color Test)
- Maintain that Vision- tested every 6 months
- Train for a year with the Senior Color Scientist

HOW GOOD IS YOUR VISION?

Only one of these color bars is arranged out of order.
Would you be able to rearrange it in the correct order -- in under three minutes?





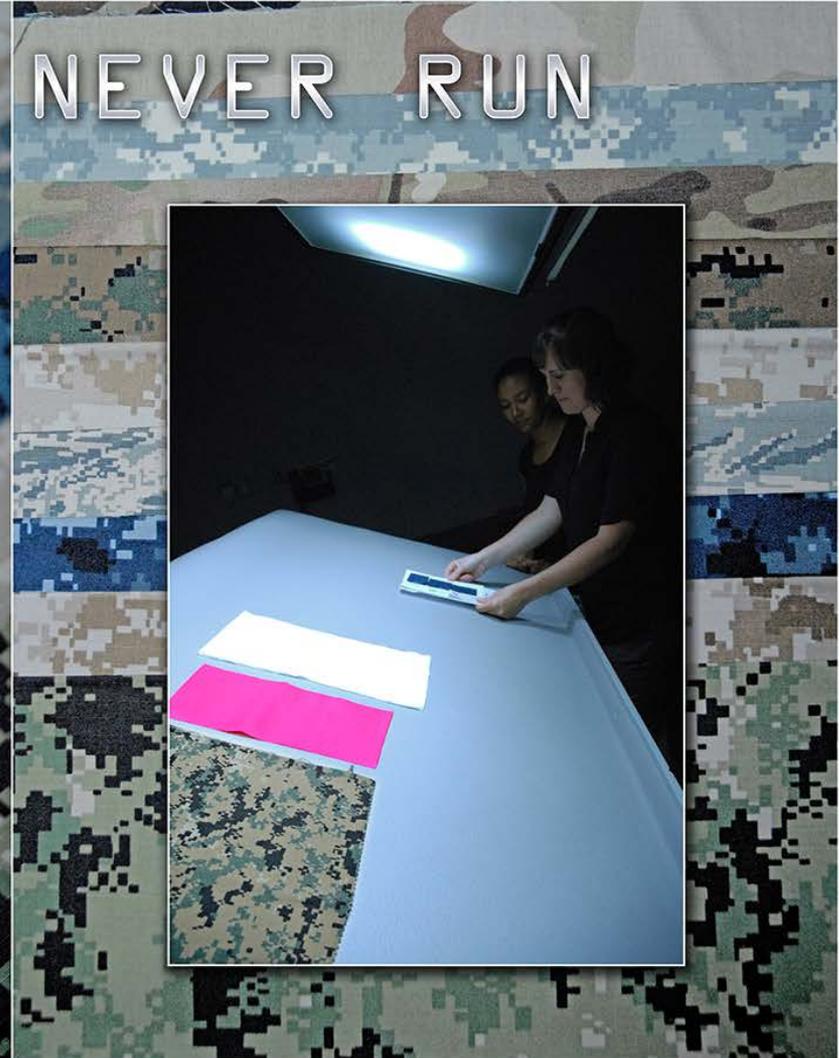
Shade Evaluation



COLORS THAT NEVER RUN

In the shade room, all uniform materials are tested under different lighting conditions for not only conformity and stability, but visibility in UV light as well.

The campaign to develop clear advantages for the American warfighter is a constant move forward.





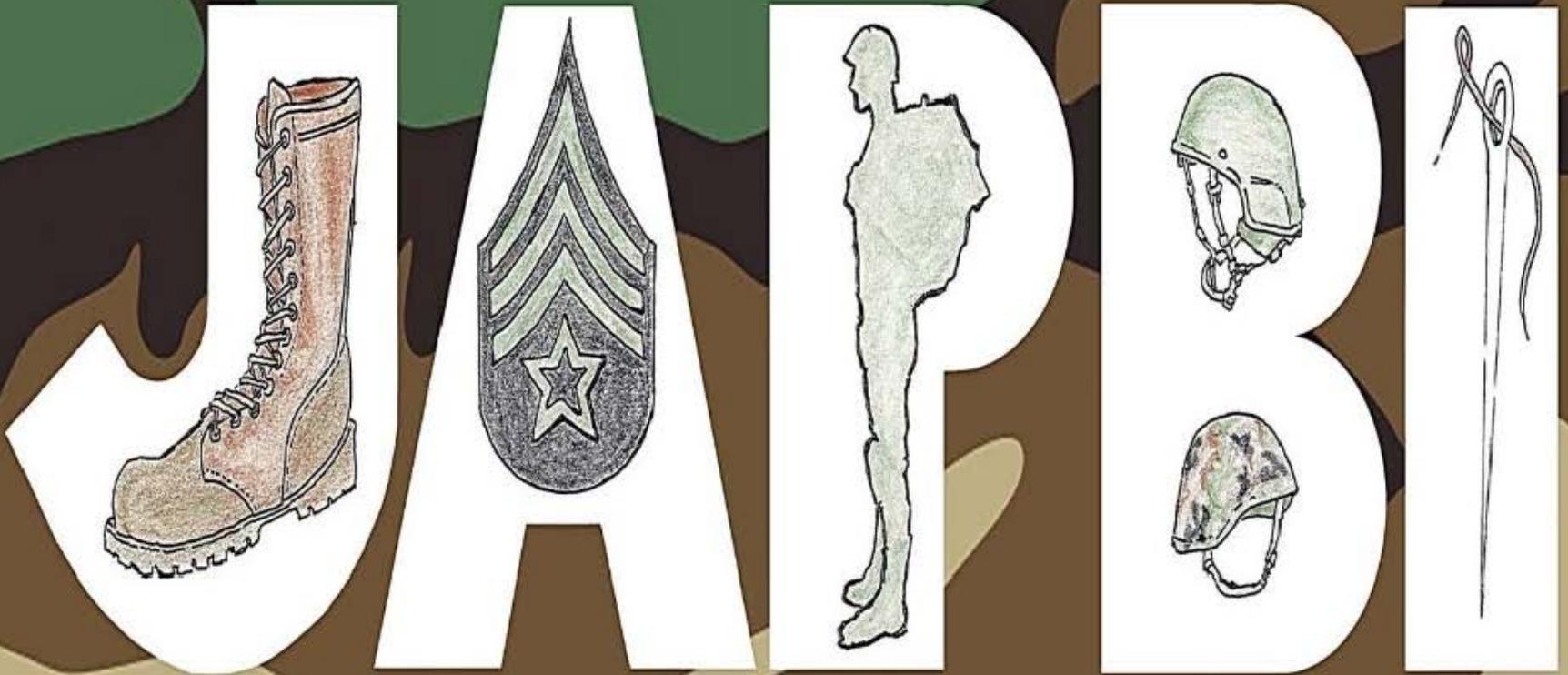
Supporting the Warfighter



WARFIGHTER SUPPORT



Joint Advanced Planning Brief for Industry



Hosted by DLA Troop Support Clothing and Textiles

Break



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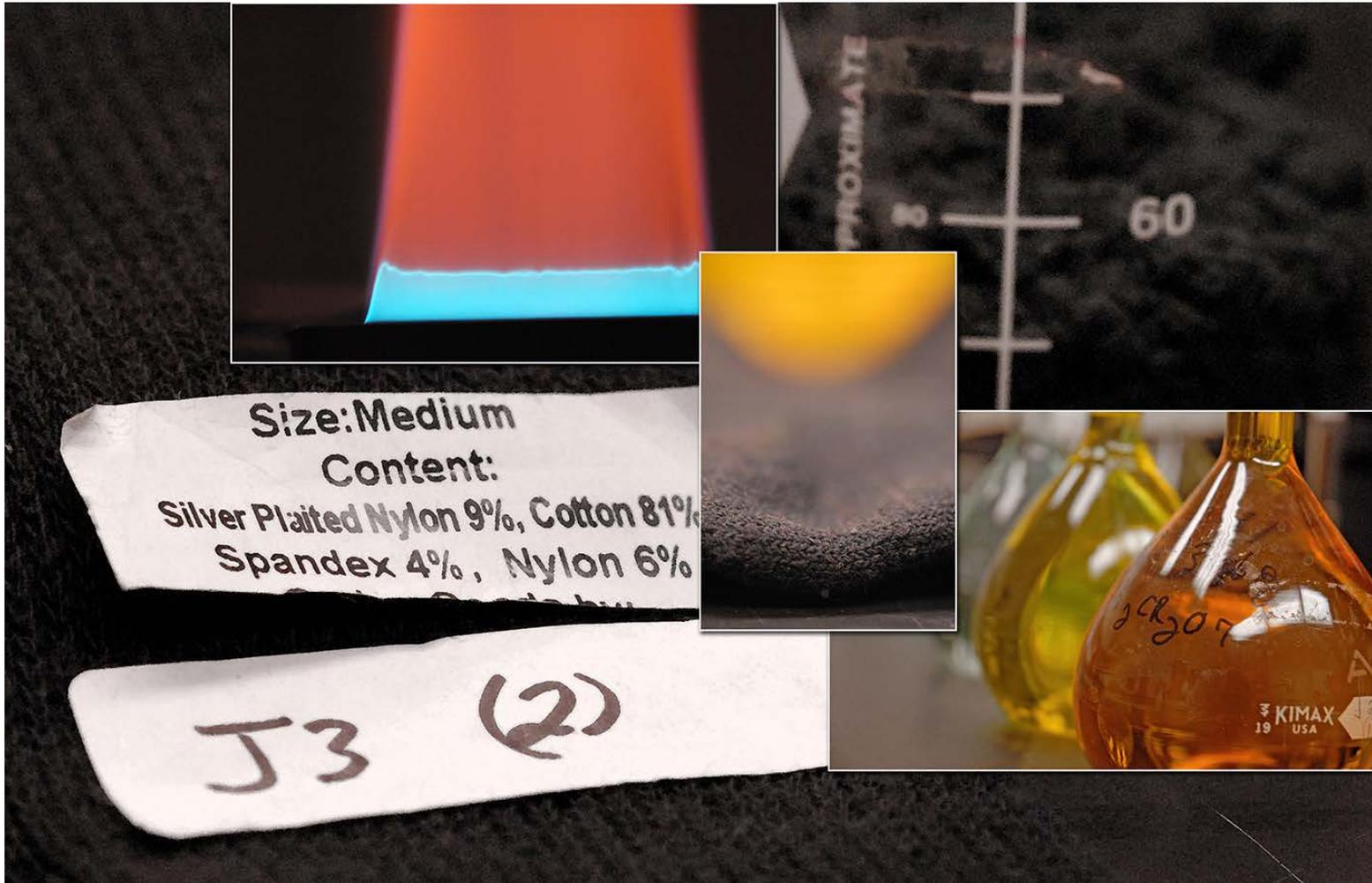
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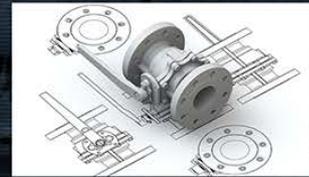
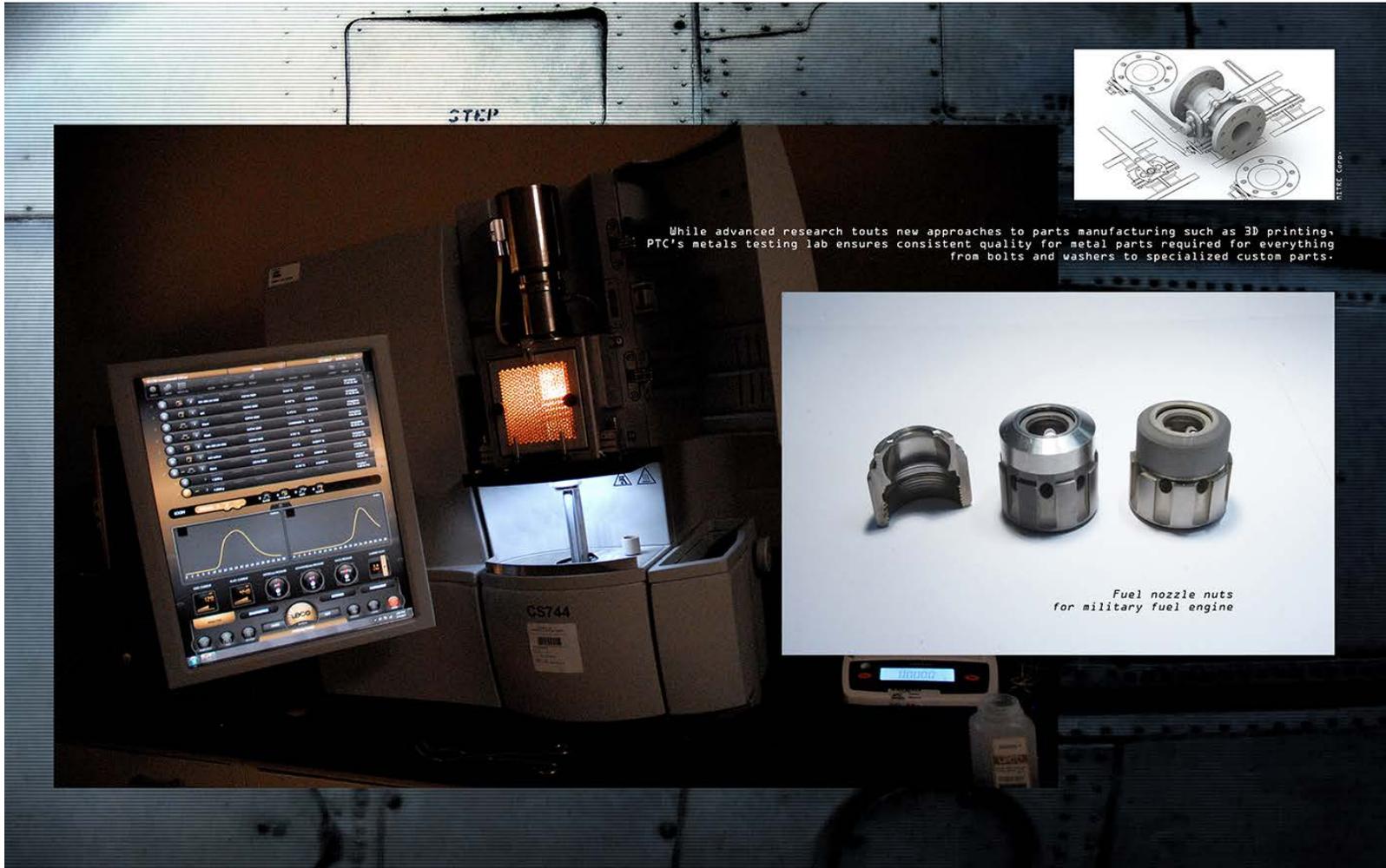


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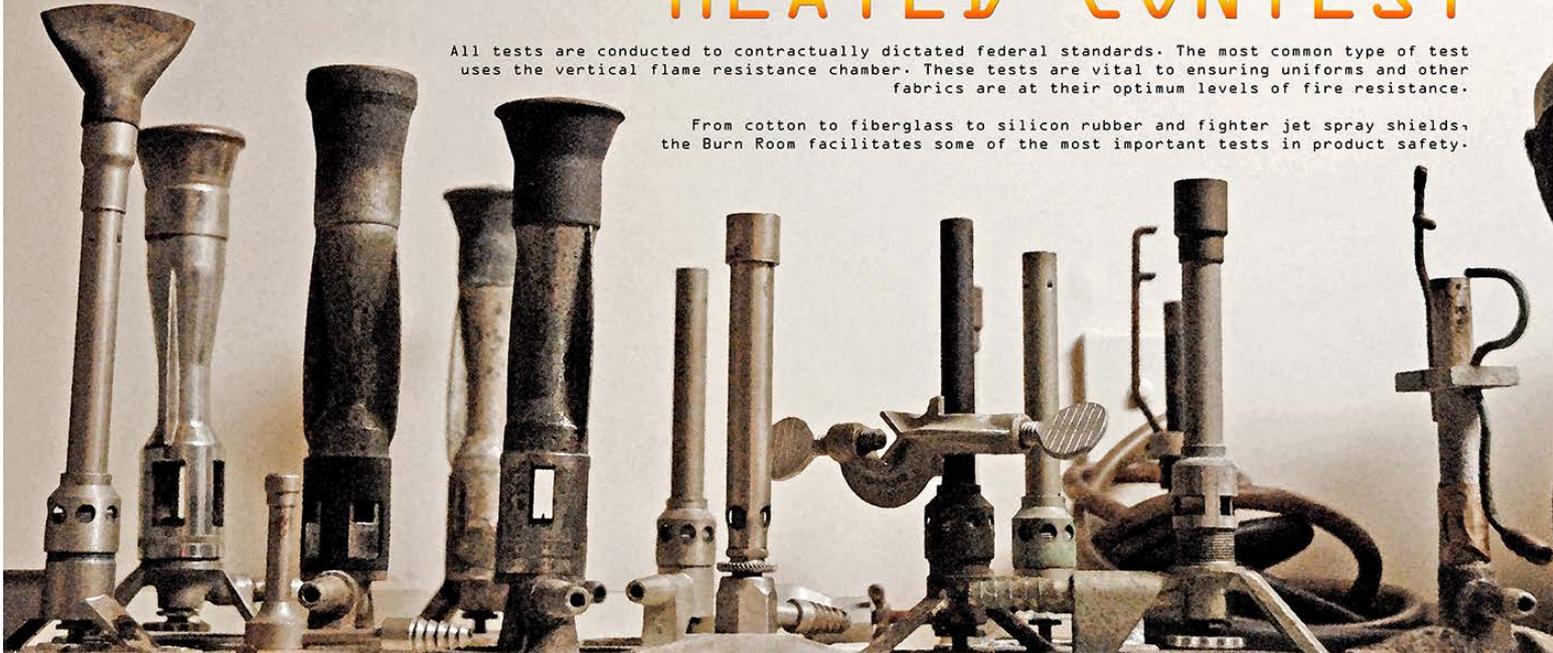
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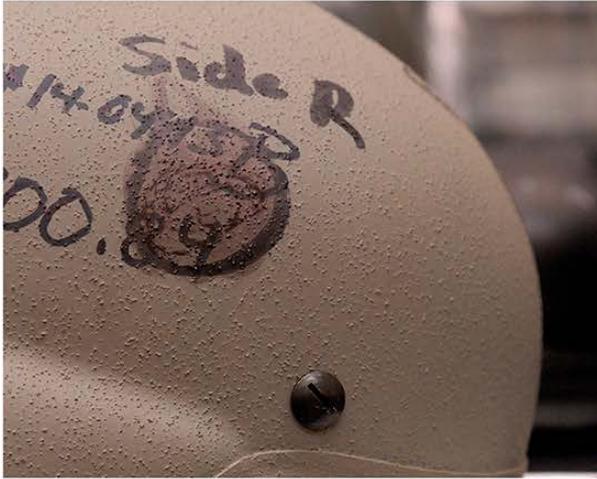
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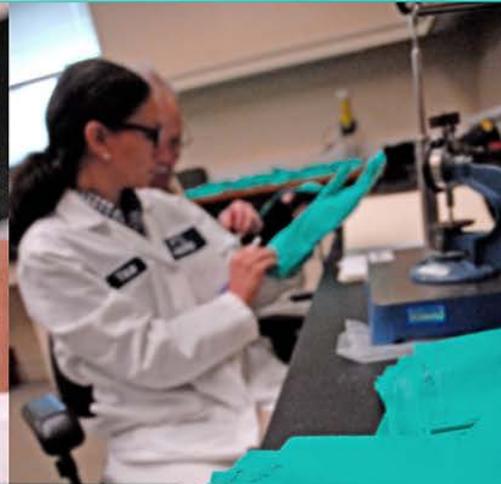


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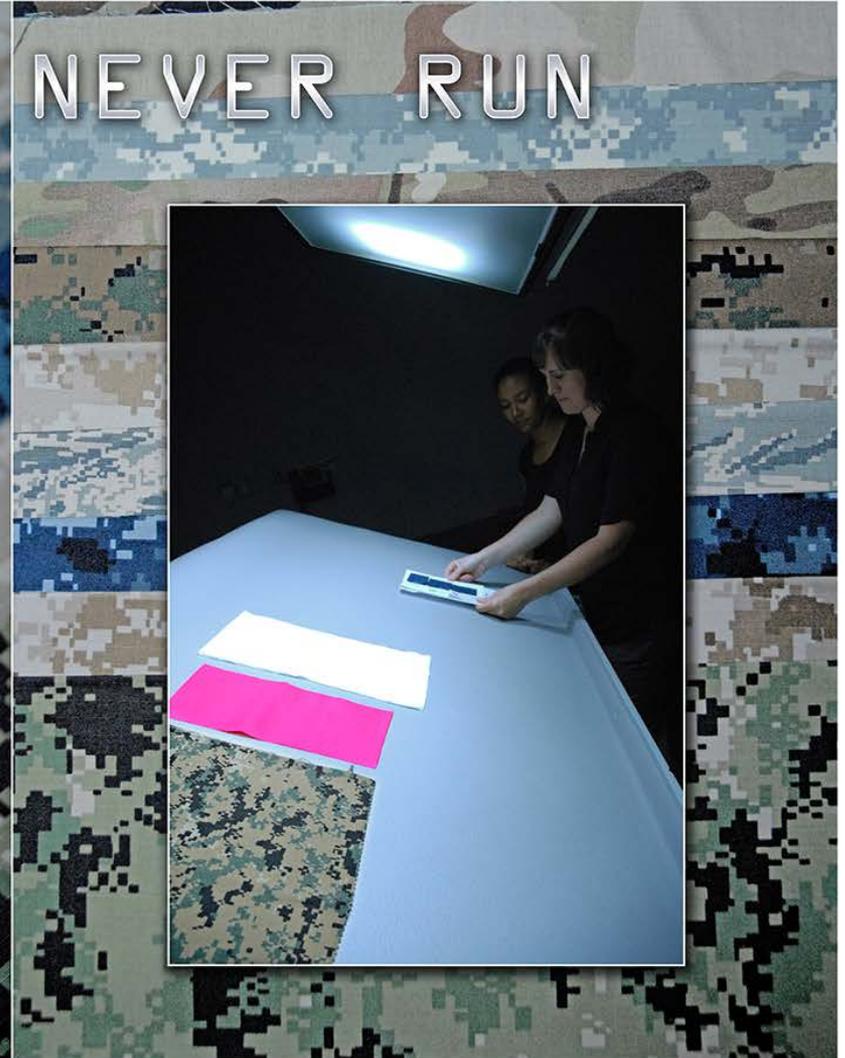
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