

Opportunities in Defense Textiles, Non-Wovens and Composites



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Defence forces worldwide are spending more than 1600 billion USD every year for their procurement programs, maintenance and various other requirements. This is a very huge sum which makes the defence forces worldwide prime buyers of a wide range of products.

Textiles for the defence forces are a very small part of the overall budget of 1600 billion USD. Textiles for defence forces may have about 3 to 5 percent share, which makes it about 50 billion USD. Fabrics required by the defence forces include personal protective equipments for military personnel required during non-combat, combat and emergency operations, critical survival situations, military uniforms such as camouflage fabrics and specific performance requirements related to high hazards and extreme temperature. A recent example. US Navy Seals used very special uniforms made out of specific camouflage fabrics during the operation to kill Osama bin Laden in Pakistan.

The United States Armed Forces Defence Supply Center, Philadelphia, a purchasing division for the Department of Defence estimates that over 8,000 different textile items are purchased annually by the U.S. military, and this figure actually rises to over 30,000 line items when individual sizes are factored into the item mix.

The primary area for protection for all conditions includes chemical, biological, reduction through noises and visual devices, flame fire, thermal insects and micro organisms. In addition to this the gear must have properties for high resistance to sun, water repellent, durability, high abrasion and resistance, tear resistance and should have good air permeability.

Certain fabrics are developed as per operational requirements, certain fabrics are developed which are resistant to petroleum products and lubricants.

Development of these fabrics will require very high research and capabilities and very high level of challenges, professional ability and completing the task in time to meet the challenge and operation requirements. This requires a different mindset and highly capable professional skills. One has to take into consideration types of fibers, technical design and finesse etc into consideration.

Camouflage fabrics have existed for more than 75 years and have become very popular since 1990 after Operation Desert Storm in the Middle East by US forces in alliance with NATO.

It is anticipated that the total worldwide requirement of camouflage fabrics is more than 350 million meters annually. Approximately 35 million soldiers worldwide are using camouflage fabrics which includes army, air force, navy, Marines, Coast Guards, paramilitary forces etc.

Camouflage fabrics are utilized for concealing personnel or equipment from enemies. Camouflage fabric gives a unique effect to the personnel or equipment by making them appear as a part of the natural surroundings. It can also be used for concealing arms and ammunition by disguise or protective coloring. The fabric or the garment is dyed in patches of multiple colors so as to make the user undetectable from the surrounding environment.

Blends are polyester 65 percent and cotton 35 percent. In Middle East polyester is 35 percent and cotton 65 percent. Count ranges can be 2/20s, 2/32s, 2/40s and sometimes 2/60s also. Camouflage fabric marketing takes time as all defence forces have their own methods of establishing compliances and due diligence on suppliers and their locations which cannot be compromised. Appointments are not walk through and require contact building using all possible channels. However, once accepted they do not change suppliers unless and until they have strong reasons such as the political situation etc.

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