

DRDO develops bio suit with seam sealing glue to keep health professionals fighting COVID-19 safe

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Defence Research and Development Organisation (DRDO) has developed a bio suit to keep the medical, paramedical and other personnel engaged in combating COVID-19 safe from the deadly virus. Scientists at various DRDO laboratories have applied their technical know-how and expertise in textile, coating and nanotechnology to develop the Personal Protective Equipment (PPE) having specific type of fabric with coating.

The suit has been prepared with the help of the industry and subjected to rigorous testing for textile parameters as well as protection against synthetic blood. The protection against synthetic blood exceeds the criteria defined for body suits by Ministry of Health and Family Welfare (MoHFW).

The DRDO is making all efforts to ensure that these suits are produced in large numbers and serve as robust line of defence for the medics, paramedics and other personnel in the front line combating COVID-19.

The industry is geared up for production of the suit in large quantities. M/s Kusumgarh Industries is producing the raw material, coating material, with the complete suit being manufactured with the help of another vendor. The current production capacity is 7,000 suits per day.

Another vendor is being brought in with the experience in garment technology and efforts are on to ramp up the capacity to 15,000 suits per day.

The bio suit production in the country by DRDO industry partners and other industries are being hampered due to non-availability of seam sealing tapes.

The DRDO has prepared a special sealant as an alternative to seam sealing tape based on the sealant used in submarine applications. Presently, bio suits prepared using this glue for seam sealing by an industry partner has cleared test at Southern India Textile Research Association (SITRA) Coimbatore. This can be a game changer for the textile industry. The DRDO can mass produce this glue through industry to support the seam sealing activity by suit manufacturers.

The DRDO has developed a number of products and technologies for defence against Chemical, Biological, Radiological and Nuclear (CBRN) agents. Defence Research and Development Establishment (DRDE) Gwalior, a laboratory of DRDO, has developed Chemical, Biological, Radiological and Nuclear (CBRN) Permeable Suit Mk V. Fifty three thousand suits have been supplied to Army and National Disaster Response Force (NDRF).

For first responders attending to radiological emergencies, a reusable suit has been developed by Institute of Nuclear Medicine & Allied Sciences (INMAS) Delhi.

Aerial Delivery Research and Development Establishment (ADRDE) Agra has developed various types of parachutes with fabrics similar to protective technical textiles.



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