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## DSM DYNEEMA UNVEILS DYNEEMA<sup>®</sup> ANTI STAB TECHNOLOGY, COMBINING EXCEPTIONAL PROTECTION AND WEARER COMFORT

The Netherlands, 9 December 2015 - DSM Dyneema, the manufacturer of ultra high molecular weight polyethylene (UHMWPE) fiber, branded as Dyneema<sup>®</sup>, and world leader in life protection materials and high-performance fibers, today debuts Dyneema<sup>®</sup> Anti Stab Technology, a patented anti-stab material for soft armor applications. Vests manufactured with Dyneema<sup>®</sup> Anti Stab Technology combine outstanding protection against knives and other sharp weapons with unmatched light weight, flexibility and comfort. This new technology can be combined with Dyneema<sup>®</sup> soft ballistic materials, to develop a new generation of multi-threat protective gear. DSM Dyneema is collaborating with Aegis Engineering Ltd., a global manufacturer of personal protective apparel, on a multi-threat prototype vest to assess the new material for compliance with international standards, including the HOSDB Body Armour Standards for United Kingdom Police.

*"Innovation in anti-stab technology has lagged for more than a decade and the body armor industry was in need of advancement,"* said Marcio Manique, global business director, Life Protection at DSM Dyneema. *"We developed Dyneema<sup>®</sup> Anti Stab Technology to deliver maximum protection against knife stabs, meeting the specific needs of law enforcement officers in hostile confrontations, as well as military personnel engaged in urban warfare. Of course, it also provides the light weight, freedom of movement and all-day comfort that Dyneema<sup>®</sup> is renowned for. We look forward to working with the industry to develop a new generation of multi-threat protective gear based on this technology."*

*"We carefully assessed the performance of the new Dyneema<sup>®</sup> Anti Stab Technology and believe it is exactly what law enforcement is looking for,"* said Steve Jenkins, managing director, Aegis Engineering Ltd. *"DSM Dyneema has created a breakthrough innovation that surpasses traditional solutions and represents a major advancement in the overall weight, wearability and thermal burden of multi-threat vests."*

Compared to traditional materials, this new Dyneema<sup>®</sup> technology platform enables designers to create protective vests that are up to 25 percent lighter and thinner. For example, the areal density of a protective vest prototype designed by Aegis Engineering Ltd. is approximately 5.6 kg/m<sup>2</sup>. In contrast, vests made from traditional materials that offer the same level of multi-threat protection against knives and handgun ammunition (according to standard HG1A-KR1 HOSDB 2007) have areal densities ranging from 6.7 to 7.7 kg/m<sup>2</sup>.

Dyneema<sup>®</sup> Anti Stab Technology provides exceptional [flexibility and comfort](#) that help police officers and military personnel perform their jobs more effectively.

Manufacturers of personal protective gear will benefit from receiving the new material in rolls rather than sheets, which increases manufacturing efficiency and therefore contributes to waste reduction. It will be commercially available worldwide in 2016.

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## About DSM Dyneema

DSM Dyneema is the inventor and manufacturer of Ultra High Molecular Weight PolyEthylene (UHMWPE) fiber branded as Dyneema<sup>®</sup>, the world's strongest fiber™. Dyneema<sup>®</sup> offers maximum strength combined with minimum weight. It is up to 15 times stronger than quality steel and up to 40% stronger than aramid fibers, both on weight for weight basis. Dyneema<sup>®</sup> fiber floats on water and is extremely durable and resistant to moisture, UV light and chemicals. The applications are therefore more or less unlimited. Dyneema<sup>®</sup> is an important component in ropes, cables and nets in the fishing, shipping and offshore industries. Dyneema<sup>®</sup> is also used in safety gloves for the metalworking industry and in fine yarns for applications in sporting goods and the medical sector. In addition, Dyneema<sup>®</sup> is also used in bullet resistant armor and clothing for police and military personnel.

UHMWPE fiber from DSM Dyneema is produced in Heerlen (The Netherlands) and in Greenville, North Carolina (U.S.A.). DSM Dyneema is also a partner in a high modulus polyethylene (HMPE) manufacturing joint venture in Japan. Further information on DSM Dyneema is available at [www.dyneema.com](http://www.dyneema.com).

## DSM - Bright Science. Brighter Living.™

Royal DSM is a global science-based company active in health, nutrition and materials. By connecting its unique competences in Life Sciences and Materials Sciences DSM is driving economic prosperity, environmental progress and social advances to create sustainable value for all stakeholders simultaneously. DSM delivers innovative solutions that nourish, protect and improve performance in global markets such as food and dietary supplements, personal care, feed, medical devices, automotive, paints, electrical and electronics, life protection, alternative energy and bio-based materials. DSM and its associated companies deliver annual net sales of about €10 billion with approximately 25,000 employees. The company is listed on Euronext Amsterdam. More information can be found at [www.dsm.com](http://www.dsm.com).

Dyneema<sup>®</sup> and Dyneema<sup>®</sup>, the world's strongest fiber™ are trademarks of DSM. Use of these trademarks is prohibited unless strictly authorized.

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## About Aegis Engineering Limited

Aegis Engineering Limited is a globally recognised designer and manufacturer of personal protective apparel and specialist operational equipment. This includes body armour, ballistic helmets, shields, blankets and rifle plates. Aegis works closely with manufacturers and end users in the utilisation of technological developments of materials, design and manufacturing techniques. The key personnel behind the business have a combined experience in product advancement, innovative design, efficient manufacture, application of quality controls and customer care which has enabled Aegis to remain as an industry leader. Further information about Aegis can be found at [www.aegis-eng.com](http://www.aegis-eng.com).

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Protective vest made with Dyneema<sup>®</sup> Anti Stab Technology.  
(Photos DSM Dyneema, DYNPR325)