

# filtration

Filter Carriers / Supporting Scrims

**HVAC Pre-filters** 

Vacuum Cleaner Pre-filters

Consumer Appliance Pre-filters





### Don & Low

**Engineering tomorrow's technical textiles** 



#### **About Us**

From our origins in 1792 as a linen and flax textile weaver, Don & Low has evolved into an internationally recognised innovative polyolefin textile manufacturer. Today, we are part of the multinational Thrace Group, expanding our profile across the globe. We focus on producing high performance, cost effective solutions to our clients' demands, which has led us to become one of the most versatile manufacturers serving global markets.

### Quality

Quality is a key focus at Don & Low. We never compromise on quality, from the raw materials we purchase, right through to the finished goods we produce. Continuous investment, quality management systems and experience have all contributed to us being awarded ISO 9001. Combined, this gives us confidence that our products meet the exact specifications required by our diverse range of customers.

#### **Environment**

The need for truly sustainable options remains one of Don & Low's crucial challenges. We are committed to improving our impact on the environment through our proactive environmental policies, energy reduction measures and recycling programs.

### **Innovation & Growth**

Innovation, flexibility and a proactive approach to the ever evolving markets has contributed to our success. Don & Low has many long standing relationships with both customers and suppliers with whom we work closely to develop tomorrow's technical textiles. Enabling growth along with our customers, lies at the heart of our innovation philosophy.

www.donlow.co.uk

# Don & Low | filtration



Filtration is one of the fastest growing segments for nonwovens. Air filters control air purity in a wide range of industrial and domestic processes, from computing and telecommunications, to personal protection and medical care. Stricter environmental legislation, combined with raised health awareness, ensures the continuous demand for clean air. At the same time the need to reduce energy

Our Daltex® filtration nonwovens have been designed and engineered in partnership with our customers to create solutions to some of the most demanding applications. Incorporation of additives and the flexibility to laminate to other materials, particularly meltblown, make these materials ideally suited to the increasing demands of the filtration market.





### nonwovens in air filtration

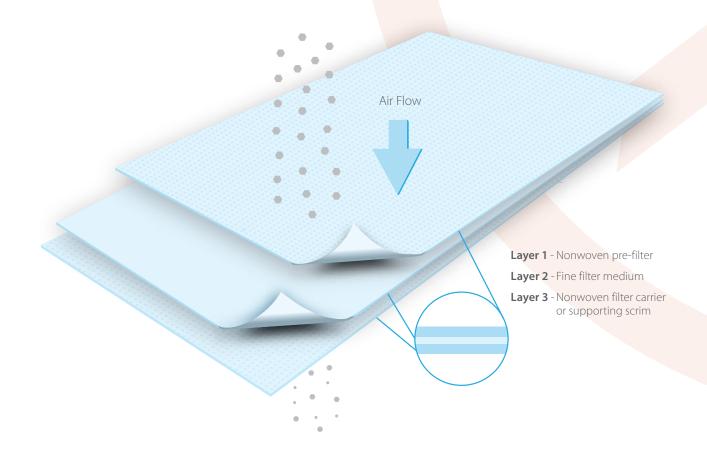
Daltex® nonwoven spunbond materials are highly air permeable, maximising air flow while minimising air flow resistance in both surface and depth filters.

Manufactured from polypropylene, our nonwovens have excellent chemical resistance and the inclusion of flame retardant and anti-microbial additives can provide added functionality in specific applications.

The diverse nature of our fabrics ensures they can be used in many air filtration devices helping to remove a wide range of contaminants from the air including dust, pollen, mould and bacteria.

The industry standard, EN779:2012, defines filter dust holding capability and effect on pressure drop. The material characteristics, including fibre shape and diameter, porosity, air permeability and thickness, classify our nonwoven polyproylene spunbond Daltex® Lowbond™ and Lowbond™ Ultra as G4 and M5 respectively.

Typically air filters are made up of three main components: a pre-filter, a fine filter and a supporting scrim.





### **Pre-filter Media**

Air filtration units are responsible for keeping air clean and healthy, which is particularly important to maintain air quality in indoor environments.

With an open, fibrous structure, Daltex® Lowbond™ and Lowbond™ Ultra remove solid particulates from the air and are ideally suited to pre-filter applications. Providing structural support to the finer filter medium, our materials retain an extremely low resistance to air flow throughout the service life of the filter unit. Completely manufactured from polypropylene, and with a thickness of around 1mm, all our products can be ultrasonically welded into filter housings for easy fabrication.

Increasing the overall efficiency of a filter can be achieved by using several layers of nonwoven fibrous materials. With facilities to produce both discrete and laminated rolled goods, we can combine Daltex® nonwovens with meltblown for the filtration of very fine particles.

### **Filter Carriers / Supporting Scrims**

Filter carriers or supporting scrims are key applications of Daltex® in air filters. With a strong tear, puncture and abrasion resistant structure, our nonwoven provides finer filter media with support and stability, without compromising on air permeability.

Our technology means our materials have air permeability values up to 23% higher when compared to other market leading spunbond nonwovens, resulting in lower energy consumption of powered devices. This reduced motor size improves energy efficiency and generates cost savings. Our customers recognise the inherent benefits of Daltex® nonwoven fabrics, not only to their products, but also to their processes.



Daltex® spunbond manufacture



## pre-filter media

### Vacuum Cleaner / Consumer Appliance Pre-filter

Currently, vacuum cleaners typically have motors from 1800-2200W. Under new European Union rules designed to cut energy use, all new vacuum cleaners cannot have a motor exceeding 1600W. From 2017, the limit will reduce to 900W. In addition, and for the first time, vacuum cleaners will have to carry A - G ratings for energy use, dust emission and noise as well as cleaning performance on hard floors and carpets.

Daltex® Lowbond™ and Lowbond™ Ultra nonwovens both have extremely low resistance to air flow. In vacuum cleaners with smaller motors, the nature of these spunbond materials ensures suction is maintained and that the product meets new legislation. Retained air permeability with very high dust loading capacity can offer good cost savings and help prevent final filter clogging.

### **HVAC Pre-filter**

Heating, Ventilation and Air Conditioning (HVAC) systems utilise a variety of different filters, including mats, bags, cartridges, cassette and pocket filters.

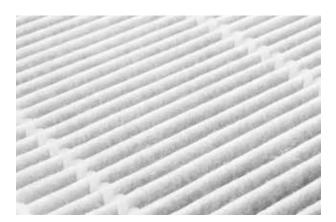
Ventilation systems remove contaminants such as moisture, odour, dust, airborne bacteria and carbon dioxide to provide high indoor air quality. Daltex® Lowbond™ and Lowbond™ Ultra maximise filtration surface allowing constant particulate removal and with superior dust loading capacity, increase efficiency and filter life. With excellent chemical resistance, Lowbond™ and Lowbond™ Ultra are durable to temperature variability and excessive moisture content.





## challenge us to meet your needs





Each application and customer has a different technical requirement and unlike other manufacturers, the production facility at Don & Low allows complete flexibility.

Capable of manufacturing smaller production runs, specialist laminates and up to 5 layer composites, we can provide tailor made solutions to your demands regardless of size, application, performance or geographical location.

For over 25 years we have worked in partnership with leading global manufacturers of polymers, film and additives, allowing us to say with confidence that our products meet the most demanding criteria. This global network allows us to design fabrics both internally and with our raw material suppliers ensuring we successfully meet our customers' needs.

It is this flexibility and approach that has enabled us to co-develop fabrics that answer the demands of tomorrow.

Our philosophy is simple; should you have a specific requirement which does not fit into our existing range, we will aim to develop our fabrics to meet your needs.





