

PARAFENCE

The Ultimate Windbreak Fencing System

PARAFENCE™ the world's most effective lightweight windbreak fencing system. **PARAFENCE™** is the perfect choice for applications where high winds could cause severe damage to buildings and crops or injury to people and livestock or where sand and snow barriers are a necessity.



PARAFENCE™ FEATURES

- Provides maximum protection
- Light weight, easy to handle
- Easy to relocate
- Tough and durable
- High impact & tensile strength
- Retains tension once installed
- Virtually maintenance free
- Rot proof
- Does not compete with crops for water or nutrients

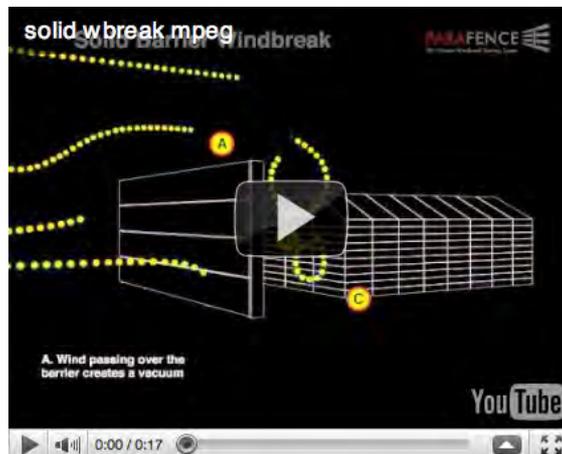
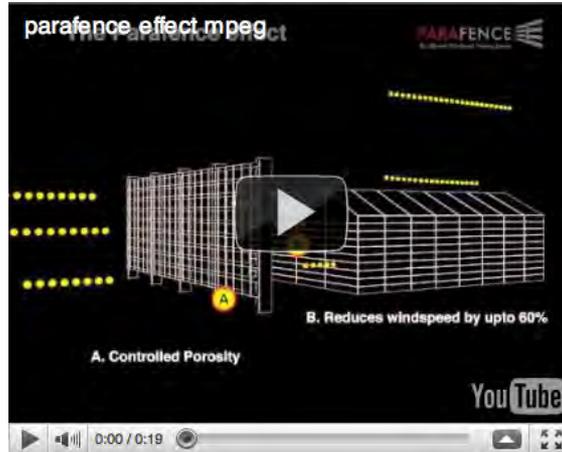
PARAFENCE™ CASE STUDIES

PARAFENCE for Engineering applications
Windbreak System
Chirex UK

The system, which is manufactured from high tenacity polyester fibres encased in a durable polyethylene sheath, has been proven across the world in a wide variety of applications ranging from the protection of industrial plant and equipment, through mining and quarrying to agriculture and horticulture.

Additionally it has been widely used to provide effective windbreaks on open highways and other transport routes and its special properties have made it ideal for use as sand/snow control barriers.

The scientific key to the success of **PARAFENCE™** is 'controlled porosity'. When solid structures are used as windbreaks they can have the effect of actually increasing wind damage. They cause the wind flow to rise over the structure, creating an area of low pressure and a partial vacuum to the leeward side. The vacuum tends to pull the free stream downwards, quickly negating the windbreak effect. This situation is worsened because friction between the free stream and the vacuum can generate high speed turbulence capable of causing more damage than the original wind.



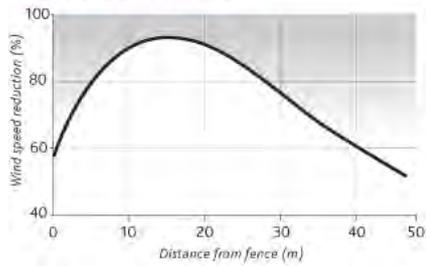
PARAFENCE™ is engineered to avoid this problem. It is manufactured from a series of horizontal

TECHNICAL DATASHEETS
SECURE LOGIN



and vertical webs, carefully designed to enable 'controlled porosity' – i.e. the design allows a diffused flow of wind to pass through to the leeward side. Although travelling at a much slower speed, this flow is closer to equilibrium with the higher energy free stream flow and the downward suction effect on the free stream is much less. As a result the problem of high speed turbulence is avoided and the wind shelter effect persists for much greater distances than those achieved with a solid structure.

Windspeed reduction

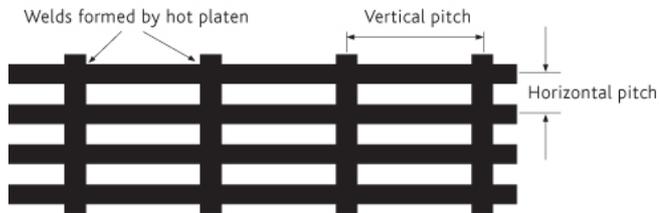


Depending on the type of Parafence selected, the system has the ability to reduce windspeed by between 58 and 68%.

The graph opposite illustrates the results of wind tunnel trials carried out at Nottingham University, using a 1.8m high Parafence windbreak.

PARAFENCE™ is composed of horizontal and vertical webs, manufactured from high strength polyester filaments encased in a polyethylene polymer. Assembly of the fence structure is carried out on a purpose-designed machine that welds the horizontal and vertical members together. Horizontal webbings are, typically, 50mm wide and 50mm apart although a wide variety of variations is possible.

Typical nominal breaking loads (NBL) for the horizontal webs are 165kg, 400kg and 1000kg with widths of around 50mm. **PARAFENCE™** is supplied in rolls of 30m in five standard heights – 2.2m, 2.0m, 1.8m, 1.4m and 1.0m which are constructed from the following number of horizontals; 22, 20, 18, 14 and 10 respectively. **PARAFENCE™** is most usually supplied in black to provide the highest UV resistance but is also available in orange, light green and dark green.



Standard PARAFENCE™ Range

Type	5	5L	5LV	4	4L	4LV	50	50L	50LV	40	40L	40LV
Vertical pitch (mm)	500	500	500	500	500	500	1000	1000	1000	1000	1000	1000
Vertical loop	n/a	1	2	n/a	1	2	n/a	1	2	n/a	1	2
Horizontal loop	n/a	n/a	n/a	2	2	2	n/a	n/a	n/a	2	2	2

Intermediate grades are available on request.

The full technical properties and performance parameters of **PARAFENCE™** are detailed in separate data sheets, which are available to download within the secure login area.

PARAFENCE™ applications



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