

Typical stone grading

Typical test pressures (kPa)	Waste depth (m)	Maximum stone size (mm)							
		10	20	20	20	30	30	32	40
		Stone grading (mm)							
		5-10	5-20	10-20	20	10-30	20-30	16-32	20-40
245	10	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	LFX22
370	15	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	LFX22
490	20	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	LFX8	x
615	25	LFX8	LFX8	LFX8	LFX11	LFX8	LFX11	LFX8	X
735	30	LFX8	LFX8	LFX8	LFX11	LFX11	LFX14	LFX14	X
860	35	LFX8	LFX8	LFX11	LFX11	LFX11	LFX14/17	LFX14/17	x
980	40	LFX8	LFX11	LFX11	LFX14	LFX14	LFX19/22	LFX19/22	x
1105	45	LFX8	LFX11	LFX14	LFX14	LFX19	LFX22	LFX22	x
1225	50	LFX11	LFX11	LFX14	LFX19	LFX22	LFX22	LFX22	x

Notes:

1. Typical test pressures are based on a waste density of 1000kg/m³ using The Environmental Agency standard calculation for accelerated testing: Depth of waste x Density x Acceleration due to gravity (9.81 x 10⁻³m/sec²) x Safety factor (2.5)
2. Assumes sub-rounded stone & waste density of 1t/m³.
3. Two grades are shown where the loading conditions are more severe and the angularity of the stone is more critical. The lower grade is predicted for well-rounded stone and the higher grade for angular stone.
4. x denotes that no solution is possible with a single layer of geotextile within the limiting strain of 0.25% required by The Environment Agency. Please contact GEOfabrics Limited for an alternative protection solution.
5. The data contained in this table is for *guidance only*. The LFX grade should be confirmed by cylinder testing with a sample of the stone to be used & at a load that simulates the waste depth.
6. Please contact GEOfabrics to arrange a complementary UKAS accredited cylinder test to either Environment Agency Methodology for cylinder testing of protectors for geomembranes (UK) or Determination of the long-term protection efficiency of geotextiles in contact with geosynthetic barriers EN 13719.