



Grange Quarry Ltd, Kirkburn Ind Estate, Lockerbie, DG11 2FF

**Certificate of Aggregate Physical Properties**

Source : Grange Quarry

Aggregate Type : Greywhake

Date of Issue : 12<sup>th</sup> May 2017

Aggregates for Concrete, Bituminous Mixtures, Unbound and Hydraulically Bound

	Mean Value	Ukas Certificate Available
Micro Deval BS EN 1097-1 : 2011	28	Yes
LA Abrasion BS EN 1097- 2:2010 CLAUSE 5	15	Yes
Magnesium Sulphate Soundness Value(MSSV) BS EN 1367-2	5	Yes
Polished Stone Value(PSV) BS EN 1097-8 : 2009	64	Yes
Frost Heave BS 812: Part 124: 2009	4.5	Yes
Bitumen Affinity BS EN 12697-11: 2012	4.0	Yes
Particle Density BS EN 1097-6	Oven Dry	Yes
	Saturated Surface Dry	Yes
	Apparent	Yes
	Water Absorption	Yes
Resistance to Surface Abrasion(AAV) BS EN 1097-8	11	Yes
Water Soluble Sulphates EN 1744-1	0.008%	Yes
Acid Soluble Sulphate EN 1744-1	0.1%	Yes
Total Sulphur Content BS EN 1744-1 :2009	0.1%	Yes

Water Soluble Chloride BS EN 1744-1 : 2009	0.001%	Yes

Petrographic Description

Available on request

Douglas Stewart

12/05/2017

Technical Manager

