



Product Engineering Overview

BituForce			
Material Description	BSM3	BSM2	BSM1
Suitable Material +/-	PI <12	G7 or better	G4 or better
Design Guide	TG2 / SAPEM 2013 / Wirtgen Design Manual (as bitumen emulsion stabilization)		
Where in Pavement Structure?	Base Sub Base	Base Sub Base	Base Sub Base
Example of Application % of MDD	1,5% to 2,5% (with Sand or NG)	1,5% to 2,35% (2% avg.) (with Natural Gravel)	1,8% to 3% (2,3% avg.) (with Crushed Stone)
Behaviour	Stress Dependent Improved Granular Material		
Strength type & Range	ITS (24hrs soak) 60-100kpa UCS 450-700kpa Triaxial (STT) Cohesion (kPa) 50 to 100 Friction Angle (°) <30	ITS (24hrs Soak) 100-150kpa UCS 700-1000kPa Triaxial (STT) Cohesion (kPa) 100 to 250 Friction Angle (°) 30 to 40	ITS (24hrs Soak) >150kpa UCS 1200-3500kPa Triaxial (STT) Cohesion (kPa) >250 Friction Angle (°) >40
Main Benefit (vs. conventional)	Stronger or lower cost BSMs (without sacrificing quality)		

