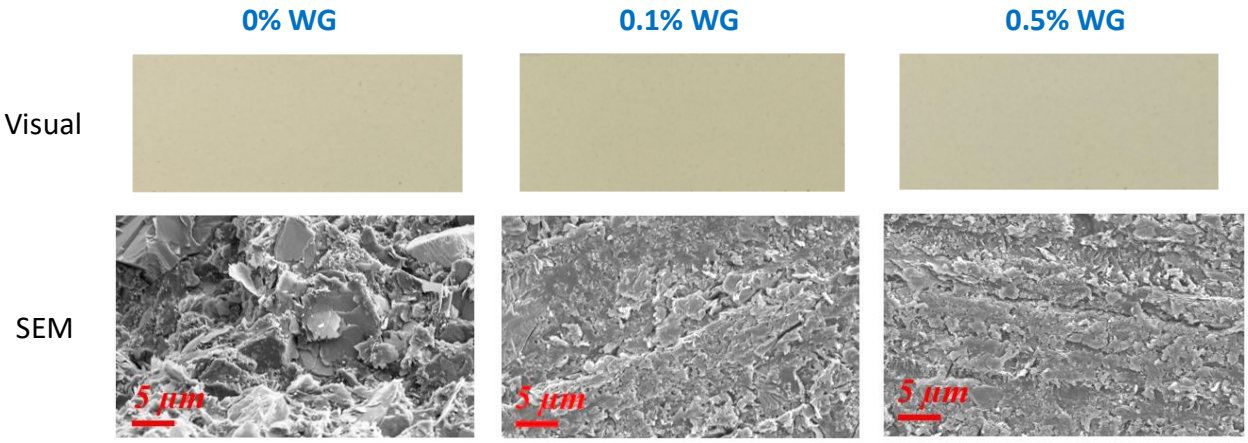
White Graphene Enhanced Epoxy Flooring

Key findings:

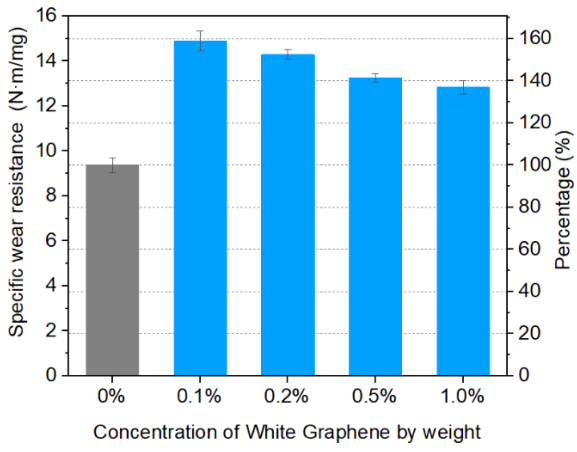
White Graphene (WG) enables prominent performance gains in epoxy floor coating at low loadings, as demonstrated using off-shelf Durebild STE product:



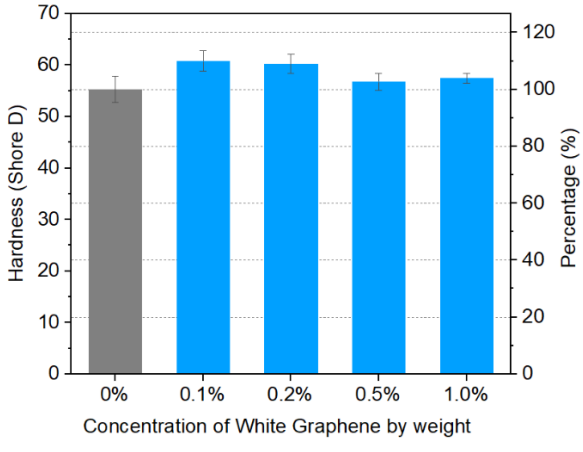
- Sand wear resistance: **+ 58%** (9.37 to 14.88 N·m/mg)
- Hardness: + 10% (Shore D 55.3 to 60.8)
- Gloss: + 11% (65.5 to 72.6 GU)
- Contact angle: + 33% (84.4° to 112.5°)



Specific (Sand) wear resistance



Shore D hardness

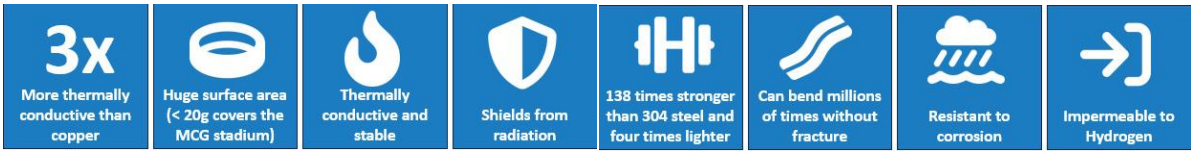


White Graphene

A novel two-dimensional layered nanomaterial - BNNS







PRODUCT CHARACTERISTICS	METHDOLOGY	STANDARD
Appearance	Visual	White solid powder
Lateral Size	Scanning Electron Microscope	0.3-10 µm
Lateral Aspect ratio	Scanning Electron Microscope	1:1 - 1:30
Thickness	Atomic Force Microscope	1-50 nm
Bulk density	EN17199-1 weighting method	0.055 g/cm³
Respirable dustiness fraction	EN17199 Small Rotating drum (M4)	55 mg/kg
Water solubility	OECD 105 Flask Method	Insoluble
Chemical composition and Impurities	Raman Spectroscopy	BN vibrational peak
	Fourier-transform infrared spectroscopy	BN vibrational peaks
	Energy-Dispersive X-ray Spectroscopy	B & N > 98% O < 2% Other < 0.5%
Surface functionalization	-	Customized

P: +61 (0) 7 3054 4500
E: info@white-graphene.com
W: white-graphene.com

Level 13, 120 Edward Street,
Brisbane QLD 4000
Australia