

# Min-Flex® WPC Reinforcement

Specialty Minerals Inc. (SMI) **Min-Flex® 200** and **325** reinforcement products are specifically designed and introduced for **Wood Polymer Composite (WPC)** applications. The pure platy aspect ratio nature of these products maximize flexural strength in composite formulations. The natural lubricity of these products lowers external lubricant demand relative to other mineral based additives. Both **Min-Flex® 200** and **325** products have demonstrated excellent additive incorporation into WPC formulations along with well behaved extrusion characteristics.

**Min-Flex®** reinforcement products are not hygroscopic, therefore, special pre-drying of these additives is not generally necessary before compounding or processing.

For typical HDPE based formulations incorporating 55% wood flour and 15% of **Min-Flex®** reinforcement, we recommend a starting external lubricant level of 4.25%. Adjustment of this level can be based on specific processing conditions and the observed quality of the extrudate.

Typical Properties	Min-Flex® WPC Reinforcement	
	200	325
Median Particle Size (microns)	6.5	5.5
Top Size (microns)	75	45
Dry Brightness (Hunter Y, Rd Value)	85	86
Oil Absorption (g/100g)	27	29
SSA (m <sup>2</sup> /g)	11.2	13.4

Typical Chemical Composition		
Silicon Dioxide	SiO <sub>2</sub>	48%
Magnesium Oxide	MgO	32%
Calcium Oxide	CaO	<0.5%
Aluminum Oxide	Al <sub>2</sub> O <sub>3</sub>	9.0%
Iron As	Fe <sub>2</sub> O <sub>3</sub>	<2.0%
Loss on Ignition	L.O.I.	9.5%
Moisture % (% weight loss @ 200° C)	H <sub>2</sub> O	<0.5%

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