

GXT – PAINT Description

GXT – paint is a coating applied by Graphene-XT in order to reduce dramatically the friction coefficient of many substrate. Graphene-XT, thanks to its flexible technology, is able to coat a wide range of different substrate: metals, polymer, glass, etc. with a pristine graphene. The graphene flakes are uniformly attached onto the surface to form a coating of different thickness.

GXT – paint can handle a heavier workload up to 10 N and more depending on the substrate. The



Figure 1: Copper coated with 200 nm of GCT - paint

coating is electrical and thermal conductive and is stable in a very harsh condition.

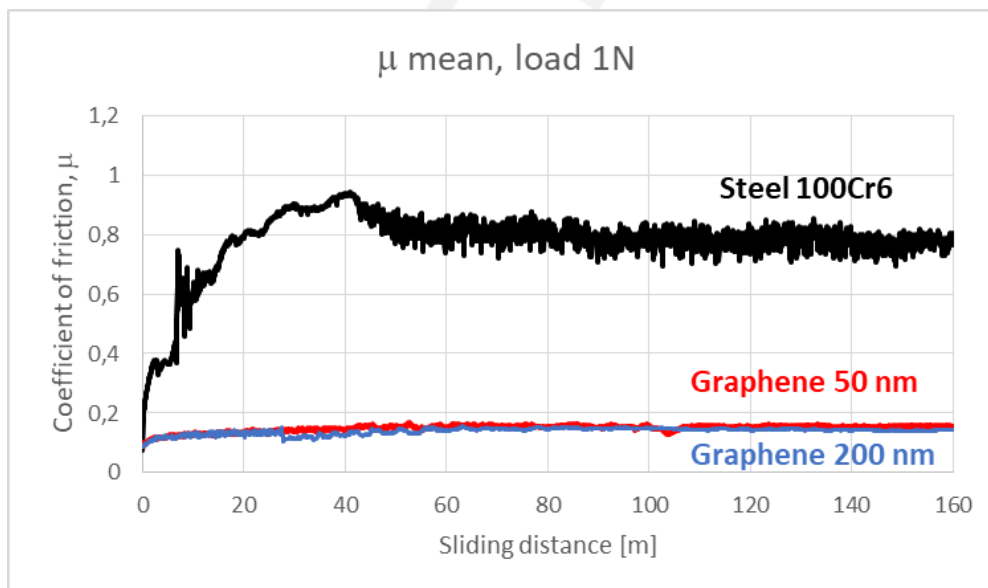


Figure 2: friction coefficient vs. Sliding distance of different graphene coating

features

Coating thickness	0,01 - 1 μm	Estimated from internal test
Electrical sheet resistance	5 Ω/sq - 100 $\text{k}\Omega/\text{sq}$	Resistance Meter
Thermal conductivity	1-15 $\text{W}/\text{mt}\cdot\text{K}^\circ$	Estimated from internal test
Typical friction reduction on 100Cr6 steel	Till 0,1 μ	Ball on disk test
Typical sliding distance	Up to 160 mt	Ball on disk test
Coating hardness	HB-3H	ASTM D3363-00

GXT – paint outperform others typical solid lubricant and Graphene-XT can process continuous product material: rod, laminated, wire, etc.

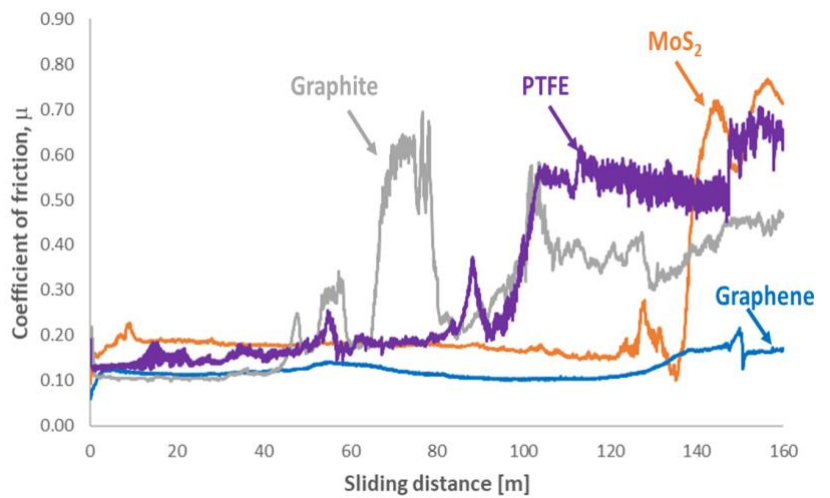


Figure 3: example of graphene paint formulation; Comparison of ball on disk test loaded at 10 N for different coating