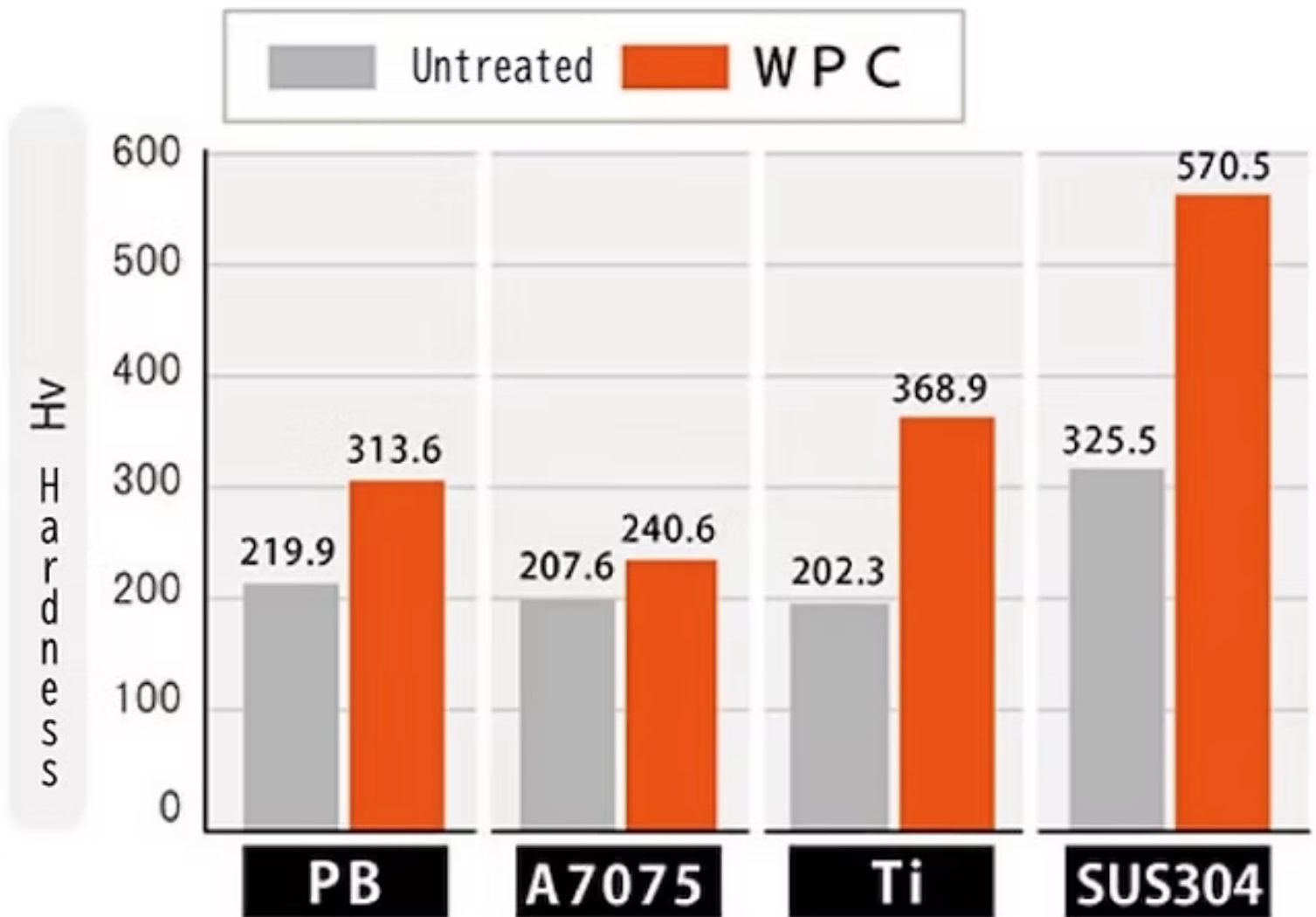


## WPC Surface Treatment

WPC is a specialized **micro-shot peening** process that fires ultra-fine particles at high speeds to strengthen the material surface.

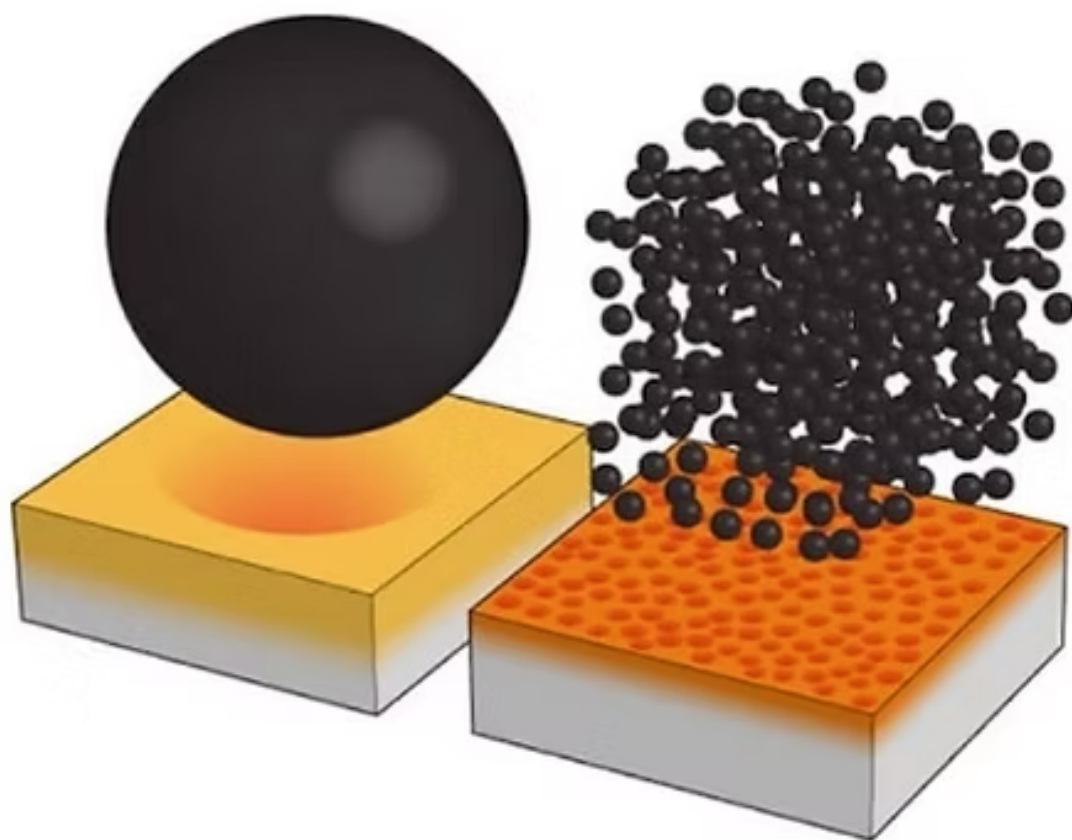
WPC Treatment® and SIRIUS Process® are patented technologies of Fuji Manufacturing Co., Ltd.



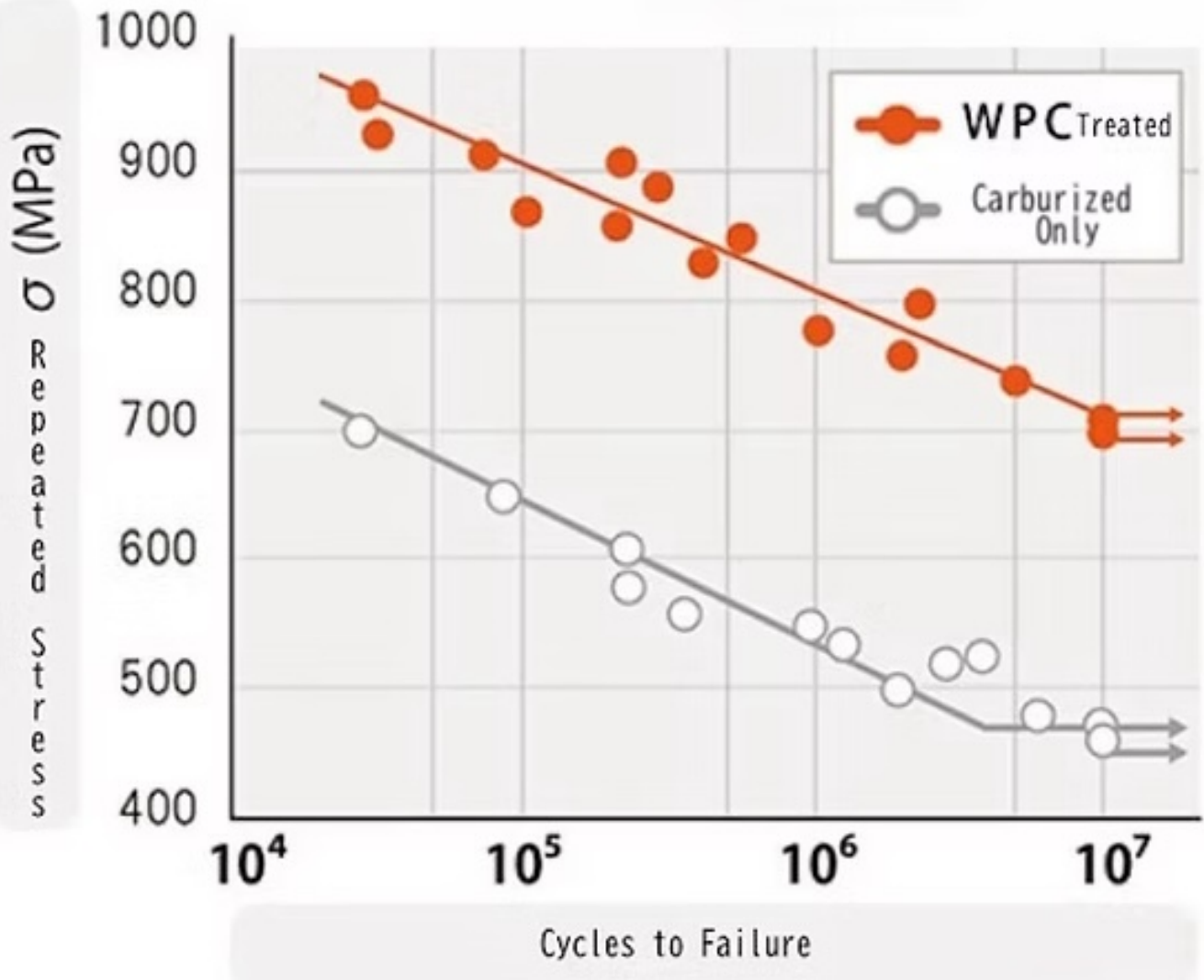
Changes in Surface Hardness Before & After WPC

Total  
Volume :  $700\mu\text{m} \cdot 1 \text{ unit} \doteq 50\mu\text{m} \cdot 2,744 \text{ units}$

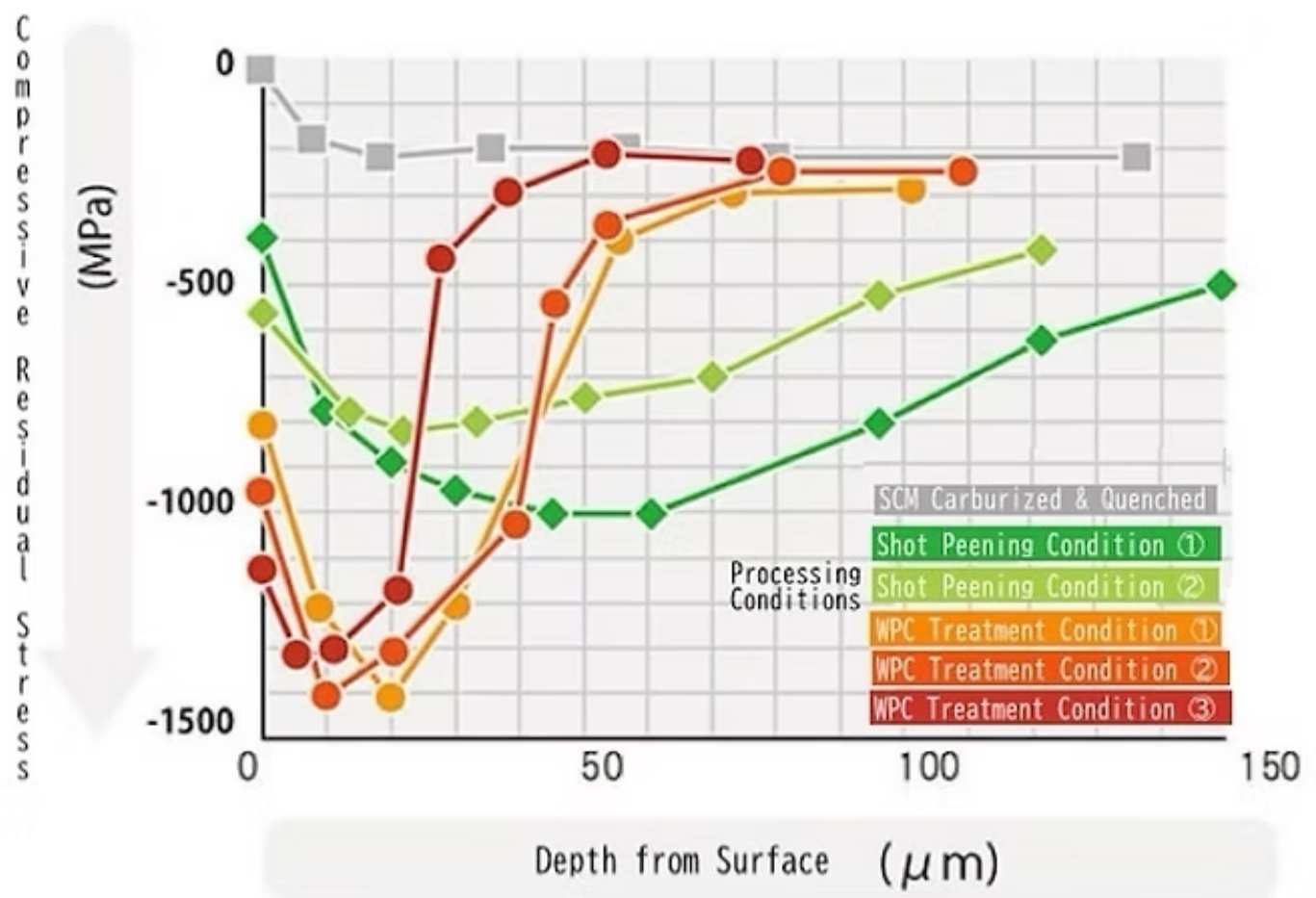
Particle :  $700\mu\text{m} < 50\mu\text{m}$   
Velocity



Efficiency Comparison: Conventional vs. WPC (Fine Particle)

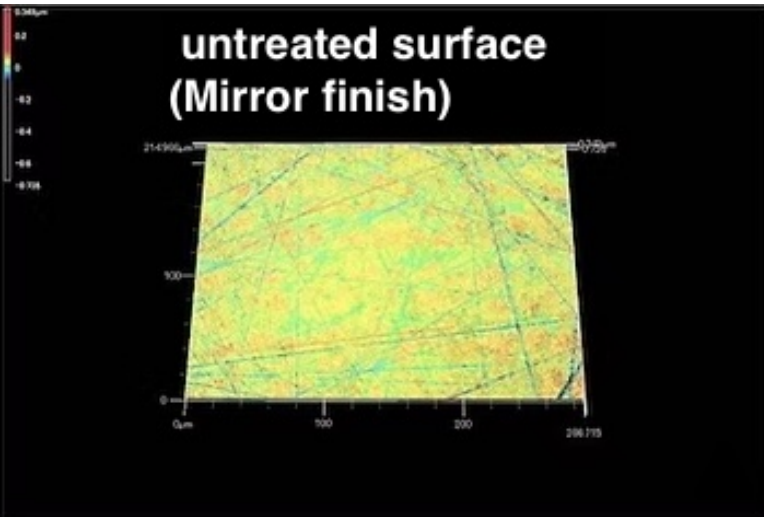


S-N Curve for Carburized SCM415 Steel



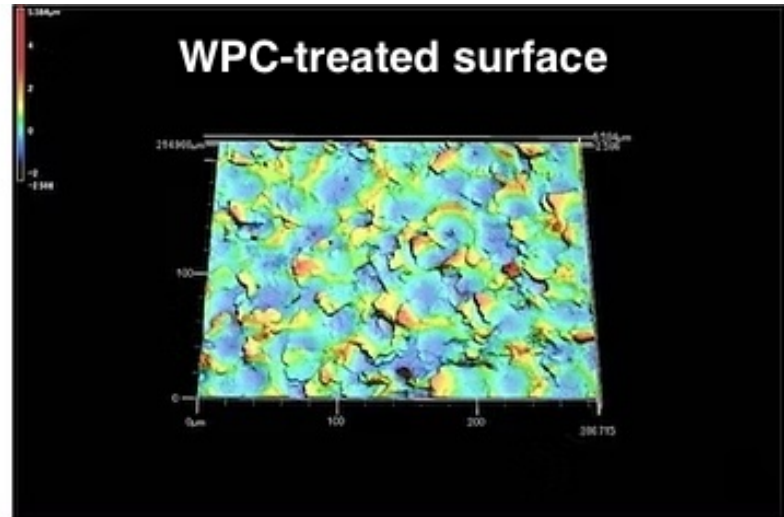
Surface Observation

(Material: SCM415 Carburized Steel. Measurement: Laser Microscope x1,000)



Ra	Rz
0.018	0.189
Rsk	Rvk
-1.089	0.041

Unit:  $\mu\text{m}$

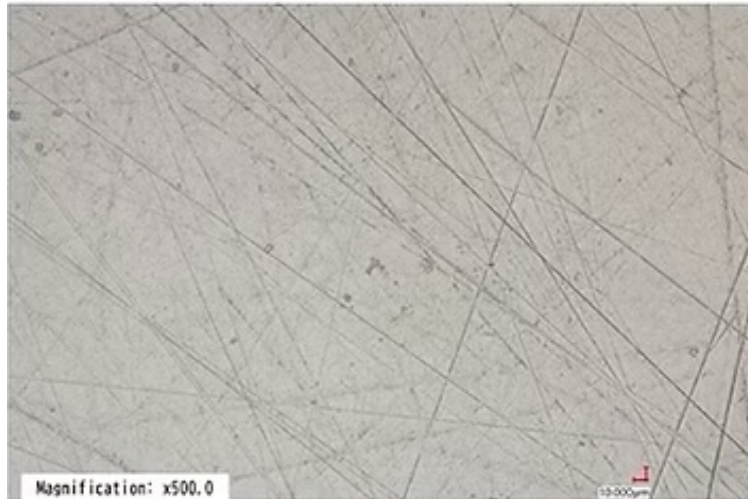


Ra	Rz
0.611	3.744
Rsk	Rvk
0.345	0.514

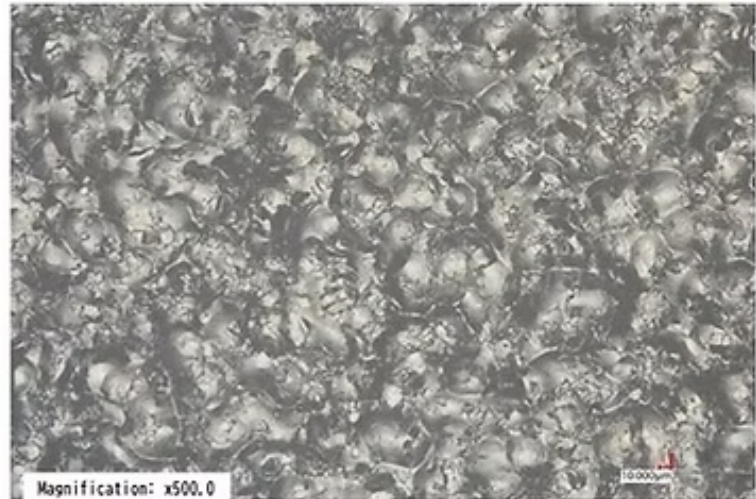
Unit:  $\mu\text{m}$

## Surface Observation

(Material: SCM415 Carburized Steel. Measurement: Laser Microscope x500)



**Untreated surface  
with remaining surface defects  
(grinding marks)**



**WPC-treated surface  
with modified surface structure**

