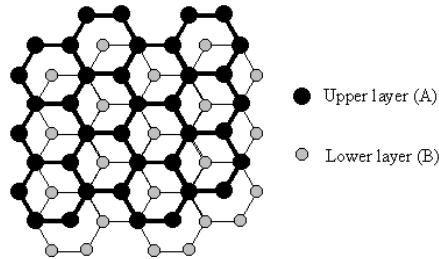
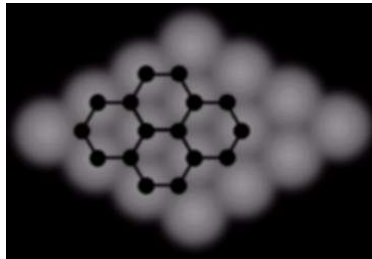


**Highly Ordered Pyrolytic Graphite  
ZYH, ZYB, & ZYA Quality  
Product No. 626, 626-1, & 626-2**



**Fig. 1** Positional relationship between two identical graphene planes A and B. Graphite structure can be described as an alternate succession of these planes ...ABABAB...

Graphite consists of identical stacked planes (Fig. 1.). A single plane of carbon atoms connected with shortest bonds is called "graphene". Highly Ordered Pyrolytic Graphite is a material of outstanding regularity and smoothness at nanoscale (Fig. 2.).



**Fig. 2.** Typical STM image of HOPG surface. Corresponding fragment of graphene structure is superimposed.

**APPLICATIONS:**

- Scanning Tunneling Microscopy calibration samples
- SPM substrates
- Monochromators
- X-Ray diffractometry
- Neutron Scattering experiments and diffractometry

**SPECIFICATIONS:**

- ZYH Quality / Mosaic Spread  $3.5^{\circ} \pm 1.5^{\circ}$  / Grain size of 30-40 nm / Size 2x10x10 mm
- ZYB Quality / Mosaic Spread  $1.2^{\circ} \pm 0.2^{\circ}$  / Grain size up to 1 $\mu$ m / Size 2x10x10 mm
- ZYA Quality / Mosaic Spread  $0.8^{\circ} \pm 0.2^{\circ}$  / Grain size up to 10 $\mu$ m / Size 1.5x10x10 mm
- Density: 2.266 g/cm<sup>3</sup>
- Thermal conductivities:
  - along C axis (0001):  $8 \pm 2$  Watt/mK
  - along surface plane:  $1800 \pm 200$  Watt/mK

The non-usable, non-oriented base layer can be up to 1mm thick and is marked with a clear tape.

626 TN V2 01202010

**TED PELLA. INC.**

*Microscopy Products for Science and Industry*

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