

HiBond Plus® Mesh

The Ultimate Surface-Modified Mesh

SAATI Hibond Plus is a high tension/ low elongation polyester monofilament screen-printing fabric with a “vacuum gas” modified surface to enhance stencil performance, offering added bonuses to the stencil maker and printer alike: time savings and stencil durability. All screen fabrics imperatively require a thorough mesh treatment before stencil processing, yet SAATI Hibond Plus is delivered ready-to-use.

Available in widths up to 100”, its special factory finishing renders the use of adhesion promoters obsolete and in some cases reduces ghost imaging. Apart from the production time savings, it will extend the life of stencils from single to triple, or more. This is a unique feature especially beneficial when printing conditions are unusually harsh, either due to the nature of the substrate or the ink system.

SAATI HiBond Plus for Fine Detail Printing

While underexposure is detrimental to the chemical and mechanical resistance of the stencil, there are circumstances where it is unavoidable in order to resolve the finest details of a stencil. A typical example is in the production of high line count halftones and the resolution of the highlight dots.

SAATI Hibond Plus will allow for safe underexposure making it possible to cope with up to a 50% time reduction without loss of stencil adhesion with dual cure photo-emulsion and capillary stencil films.

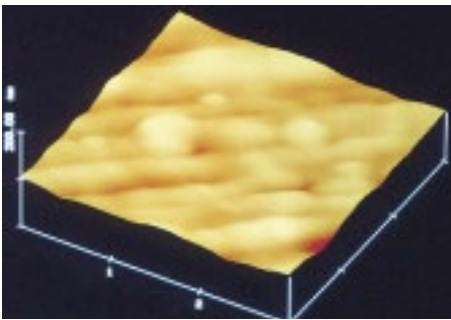
Recommendations For The Handling Of SAATI HiBond Plus

Preparing For Tensioning And Screen Storage

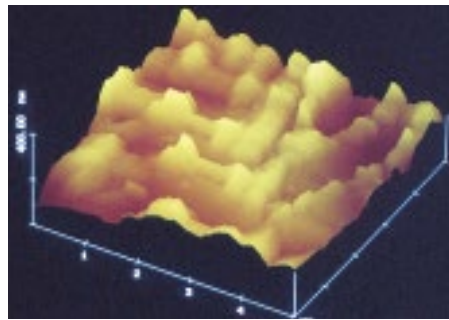
Since SAATI Hibond Plus is supplied ready to use, the user is expected to handle the product with clean hands, making sure that it does not come in contact with contaminated surfaces. Potential areas for grease contaminants include tensioning devices.

Not All Treatments Are The Same!

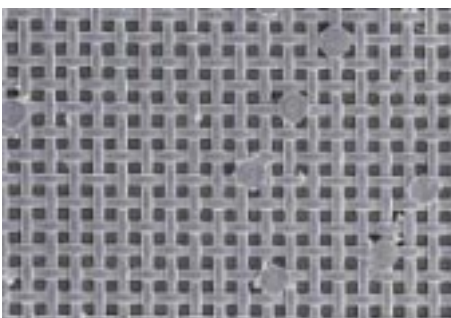
SAATI’s Vacuum Gas plasma treatment is a **deeper** and **permanent** surface treatment. Other competitors “chemically” treat their fabrics. These treatments wash off after one use and are ineffective for the life of the screen. The degree of surface modification of HiBond Plus could not happen by any other method.



Microsection of fabric surface
(AFM microphoto from conventional fabric)



Microsection of fabric surface
(AFM microphoto from SAATI HiBond Plus)



Conventional mesh halftone area
with halftone dots missing



SAATI HiBond Plus halftone
area with no stencil loss

HiBond Plus[®] Mesh

The Ultimate Surface-Modified Mesh



Increased Printing Productivity & Cost Savings

- The ultimate degree of increased stencil adhesion, resulting in less stencil breakdown on press, delivering longer print runs far beyond other conventional treated fabrics.
- Shorter exposure times due to increased stencil adhesion (halftones, fine lines etc.)
- Most cases, no degreasing pretreatment required prior to stencil processing.
- What remains is a NANO-etched surface with a greater # of hydroxyl groups that results in the absolute ultimate in surface bonding.

NOTE: Designate an easy access area for storing, unrolling and cutting the piece of fabric necessary for screen stretching. The work surface should be as smooth and clean as possible.

If screens are processed in an area where dust is inevitable, the screen surface can simply be washed with a spray of cold water to remove any dust particles that may have adhered to it.

Stencil Processing Time Chart

| Action | Traditional Fabric Time (minutes) | SAATI HiBond Plus Time (minutes) |
|----------------------------|-----------------------------------|----------------------------------|
| Wetting of Fabric | 0.5 | 0.0 |
| Roughening | 5.0 | 0.0 |
| Rinsing | 0.5 | 0.0 |
| Drying | 10.0 | 0.0 |
| Wetting (Film) | (0.5) | (0.5) |
| Screen Coating | 5.0 | 5.0 |
| Drying | 20.0 | 20.5 |
| Total Time | 41.0 | 25.0 |
| Time Savings of 40% | | |