

product solution

NBC V-Screen Next TLCP Fiber Mesh

V-Screen Next is a high performance mesh woven with next generation thermotropic liquid crystal polymer (TLCP) monofilament thread and designed for high end applications requiring extreme resolution and superior dimensional accuracy. It is ideal for use in the production of solar cells, touch panels, capacitors (MLCC), multilayer substrates (LTCC), printed circuit boards, and other high-end industrial applications.



TLCP monofilament thread is available as fine as 20 µm in diameter. These super fine threads create larger mesh openings, reducing mesh interference to the image and improving ink transition. By contrast, the thinnest commonly available PET threads are around 27 µm in diameter.

FEATURES

- **Superior Tensile Strength:** V-Screen Next boasts tensile strength superior to standard stainless steel mesh, leading to increased dimensional accuracy and minimal tension loss and distortion.
- **Superfine Threads:** Available at diameters as fine as 20 µm, V-Screen Next's superfine threads create larger mesh openings, reducing mesh interference and improving ink transition.
- **Superb Light Transparency:** With higher light transparency and lower light reflection than stainless steel mesh, V-Screen Next allows easier setup of exposure time for ultrafine screen resolutions.

ITEM DETAILS

MESH CODE	MESH COUNT /in (±3)	MESH COUNT /cm (±3)	WEAVE TYPE	THREAD DIAMETER µm	MESH THICKNESS µm (45-61")	MESH THICKNESS µm (65"+)	MESH OPENING µm	OPEN AREA (%)	THEORETICAL INK VOLUME cm ³ /m ² (45-61")	THEORETICAL INK VOLUME cm ³ /m ² (65"+)
V 420-020	420	165	1 : 1 PW	20	27±3 µm	N/A	40	45	12.1	N/A
V 380-020	380	150	1 : 1 PW	20	27±3 µm	N/A	47	49	13.3	N/A
V 380-024	380	150	1 : 1 PW	24	33±3 µm	N/A	43	41	13.6	N/A
V 330-024	330	130	1 : 1 PW	24	33±3 µm	N/A	53	47	15.6	N/A

Mesh Count: Number of threads per inch or centimeter

Weave Type: Plain Weave (PW) or Twill Weave (TW)

Thread Diameter: The diameter of each thread before weaving

Mesh Thickness: The average thickness of the woven mesh

Mesh Opening: The distance between adjacent threads

Open Area: The ratio (%) of the open area to the thread area within a woven mesh

Theoretical Ink Volume: The amount of ink the mesh should be able to hold/transfer, given as the ratio (%) of open area × mesh thickness to the thread area