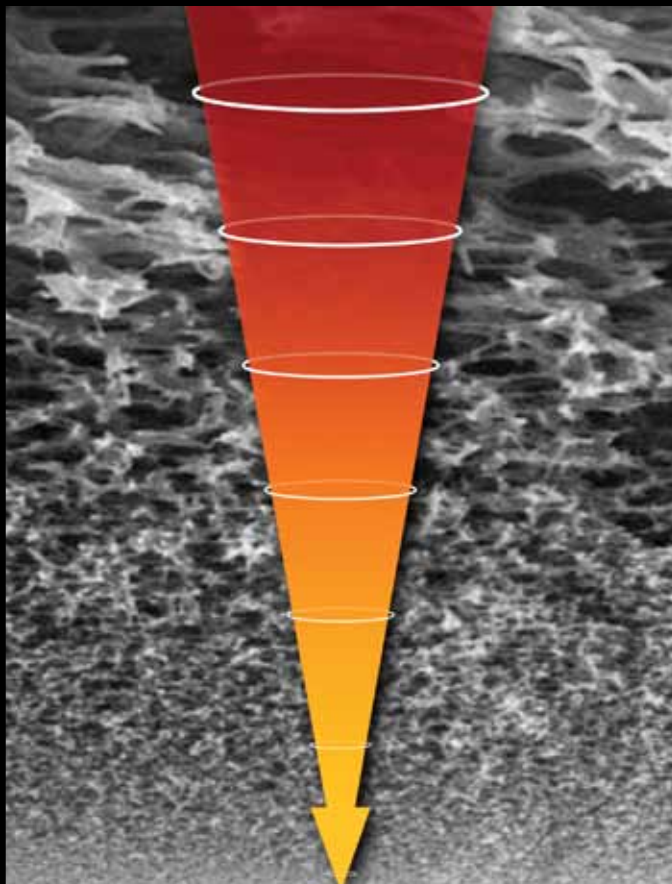


THE GOLD STANDARD

Ultipleat® SP DR Filter Surface Preparation Filter

Advanced 10 Nanometer Retention for
Functional Chemicals and DHF, BOE

Ultipleat SP DR novel membrane filter



Bath or Single Wafer

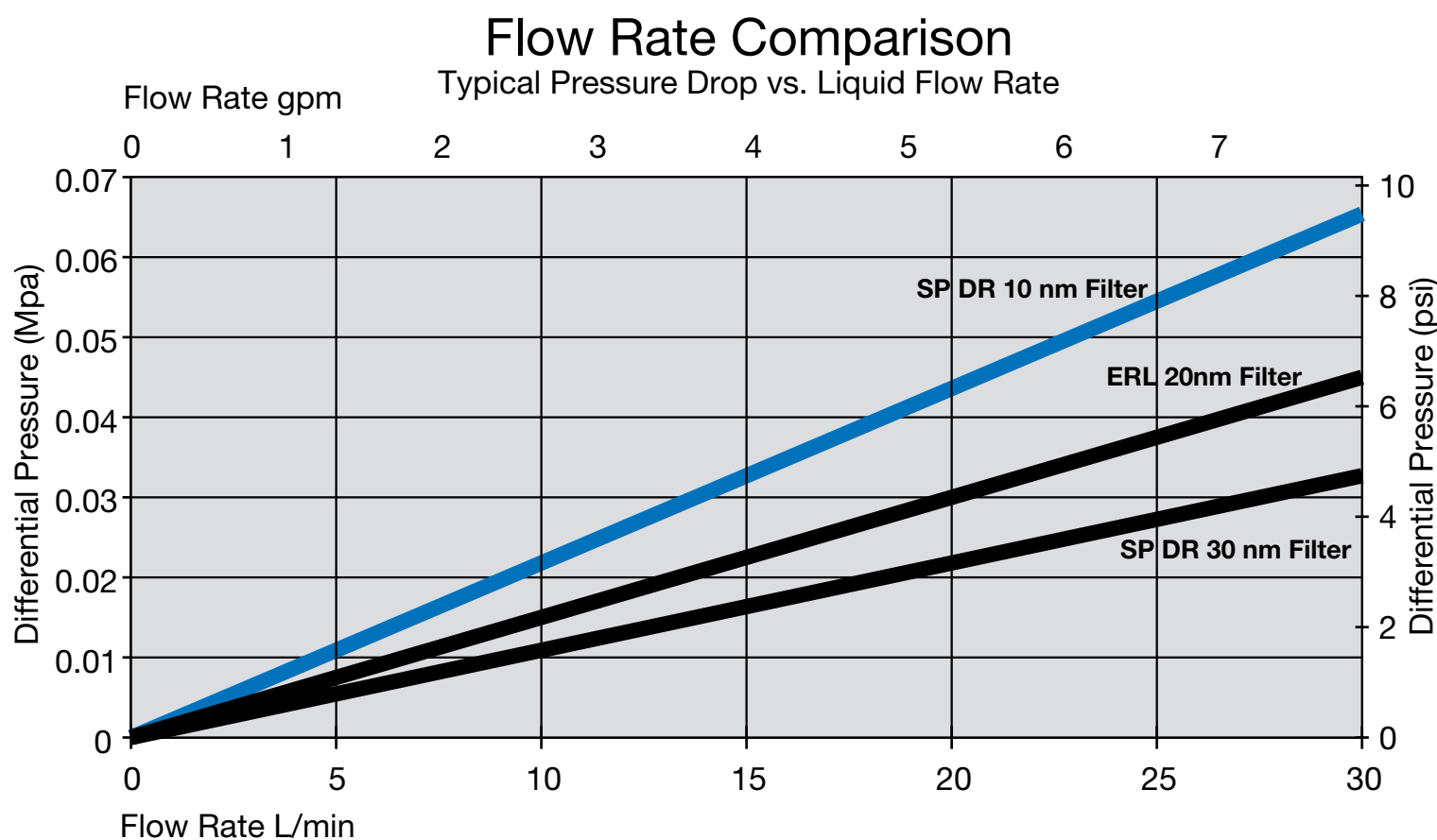
ITRS - Front End Surface Preparation

				Driver
Dram ½ Pitch (nm)	32	28	25	D
MPU/ASIC Metal 1 (M1) ½ Pitch (nm)	27	24	21	M
MPU Gate Length (nm)	20	18	17	M
FRONT SURFACE PARTICLES				
Killer defect density, DpRp (#/cm ²)	0.053	0.033	0.042	D ½
Critical particle diameter, dc (nm)	17.9	15.9	12.6	D ½
Critical particle count D pw (#/wafer)	113.3 ¹	259.7 ²	259.7	D ½

The International Technology Roadmap for Semiconductors: 2010 Update Table FEP11
 1: 300 mm Wafer Diameter
 2: 450 mm Wafer Diameter

Patented asymmetric pore design reduces flow resistance while filtering 10 nm particles.

Higher Flow Rates and Longer Service Life with Highly Asymmetric Membrane Filter



For liquids with a viscosity differing from water, multiply the pressure drop by the viscosity in centipoise.

Specifications¹

Removal Rating: ≥ 97% of 10 nm Au colloids per ICP-MS²

10 Nanometer: ≥ 99.99% of 32 nm PSL beads per UDI 30

Filter Media: Native highly asymmetric polyarylsulfone

Hardware: High density polyethylene

Packaging: Full-fill prewet packaged in ultrapure water

Cleanliness, Particles: No Detectable Particles ≥ 30nm; rinse-up in < 20 min³

Cleanliness, Extractables: Total metal ions ≤ 30 ppb⁴

1. See data sheet E115c at pall.com/micro for more information on both 30 nm and 10 nm filter grades.

2. Mizuno, T., Namiki, A., Tsuzuki, S., Numaguchi, T., A Novel Filter Rating Method for less than 30 nm particle, 10/2008.

3. Typical @ 2 GPM UPW flow rate.

4. Typical; single digit levels with Me-KleenSM option.