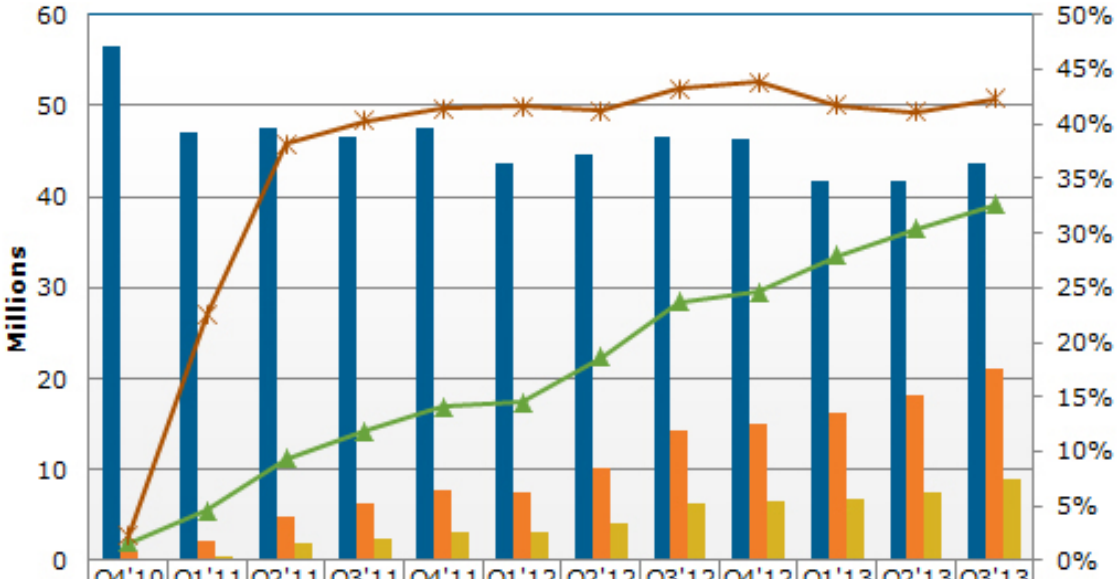
Demand for 3D optical film rises as passive 3D TV competes with shutter glass

As 3D TV continues to grow, competition between the main two 3D technologies is heating up. Film patterned retarder is finally catching up to the more established shutter glass approach. According to the NPD DisplaySearch *Quarterly Display Optical Film Report* [1], demand for 3D patterned retarder (3D PR) film is forecast to grow 104% Y/Y in Q4'12 and reach 34 million units in 2013.

"Despite the fact that 3D TV has not grown as fast as many in the industry expected, the penetration rate is still growing steadily. Nearly 30% of LCD TV panels shipped in 2013 will be 3D-capable," noted Yoonsung Chung [2], Director of Large-Area Displays and FPD Materials Research for NPD DisplaySearch. "3D PR film reportedly minimizes eye fatigue, and demand for 3D PR is growing at a much faster pace. It is forecast to account for 48% of total 3D TV panel shipments in 2013, up from 39% in 2011."



	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12	Q3'12	Q4'12	Q1'13	Q2'13	Q3'13
2D Total	56.5	47.2	47.7	46.5	47.7	43.7	44.6	46.5	46.4	41.7	41.8	43.7
3D (SG+PR)	0.9	2.2	4.9	6.2	7.8	7.4	10.2	14.4	15.1	16.2	18.3	21.2
3D PR	0.0	0.5	1.9	2.5	3.2	3.1	4.2	6.2	6.6	6.7	7.5	9.0
3D Share of TV Panels	2%	5%	9%	12%	14%	14%	19%	24%	25%	28%	30%	33%
PR Share of TV Panels	2%	22%	38%	40%	41%	42%	41%	43%	44%	42%	41%	42%

Source: NPD DisplaySearch *Quarterly Display Optical Film Report* [1]

Competition intensifies among 3D pattered retarder film suppliers
LG Chemical has led in 3D PR film shipments for nine consecutive quarters, accounting for 96% of global shipments in Q3'12. LG Display was the dominant producer of 3D PR panels for TVs and the only supplier of 3D PR monitor and notebook panels in 2012. LG Chemical supplies 3D PR panels to AUO and BOE.

However, DNP is also competing in the 3D PR film market and took a 20% share of LG Display's 3D PR film demand for TV panels in Q3'12.

Chung added, "The competition among 3D PR film manufacturers is expected to intensify, as film manufacturers look to compete. Chinese panel makers such as CEC-Panda and China Star are starting to produce 3D PR TV panels, and LG Display is expanding production of 60"+ panels in 2013—potentially joined by Sharp. Demand for 3D PR film is anticipated to rise, which will draw in other film manufacturers as well."

Panel buyers, film makers, and product planners will need to closely follow the optical film technology and market trends to stay competitive. Polarizers, TAC, PVA, compensation film, surface treatment film, wide-viewing angle film, prism sheets, micro-lens film, reflective polarizers, diffusers, and reflector film are all covered in the NPD DisplaySearch *Quarterly Display Optical Film Report* [1]. The report also provides information on technical evolutions, market forecasts, capacity profiles, value chain relationships, as well as the cost and price for each film type. For more information, please contact Charles Camaroto at 1.888.436.7673 or 1.516.625.2452, email contact@displaysearch.com [3], or contact your regional DisplaySearch office [4] in China, Japan, Korea, or Taiwan.

Links:
[1] http://www.displaysearch.com/cps/rde/xchg/displaysearch/hs.xsl/quarterly_display_optical_film_report.asp
[2] http://www.displaysearch.com/cps/rde/xchg/displaysearch/hs.xsl/analysts_ychung.asp
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[4] http://www.displaysearch.com/cps/rde/xchg/displaysearch/hs.xsl/contact.asp