



Preserve diagnostic test integrity to ensure accurate results

Groundbreaking Material Science Solutions
for Diagnostic Testing

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Aptar 
Active Material Science

Material Science Solutions to Protect Diagnostic Tests

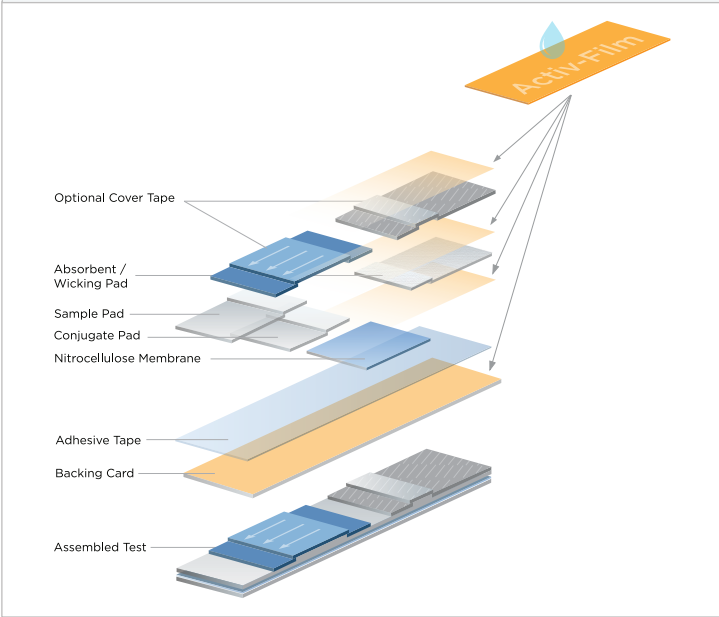
Customized protection to maintain diagnostic test kit stability and ensure test accuracy

Diagnostic tests are a critical component of patient care, enabling health care professionals to diagnose disease and recommend appropriate treatment. Recent growth of over-the-counter at-home testing options has empowered consumers and patients with the ability to self-diagnose and reduce physician visits. This shift in testing can mean tests sit on store shelves longer, increasing demand for solutions that maintain shelf life and ensure test result accuracy.

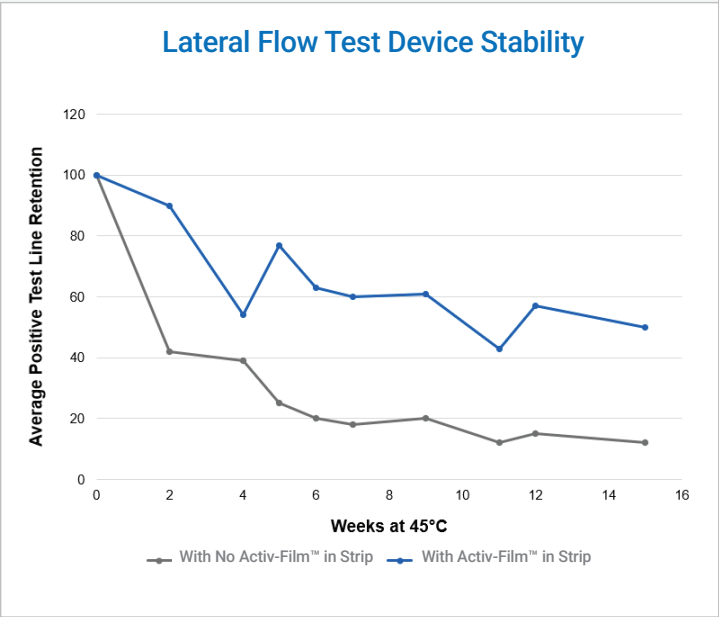
Aptar Active Material Science’s proprietary 3-Phase Activ-Polymer™ technology enables a customizable, material-science based solution that can be integrated into electrochemical, lateral flow, and molecular diagnostic test kits to protect against environmental conditions that can harm test integrity. Our range of solutions include:

Activ-Film™ Material:

- Integrated directly into the diagnostic dipstick
- Applied to the foil pouch for individual dipstick
- Applied to foil pouch for lateral flow cassettes
- Can be deployed as Active Backing Card



Lateral Flow Test Device Stability

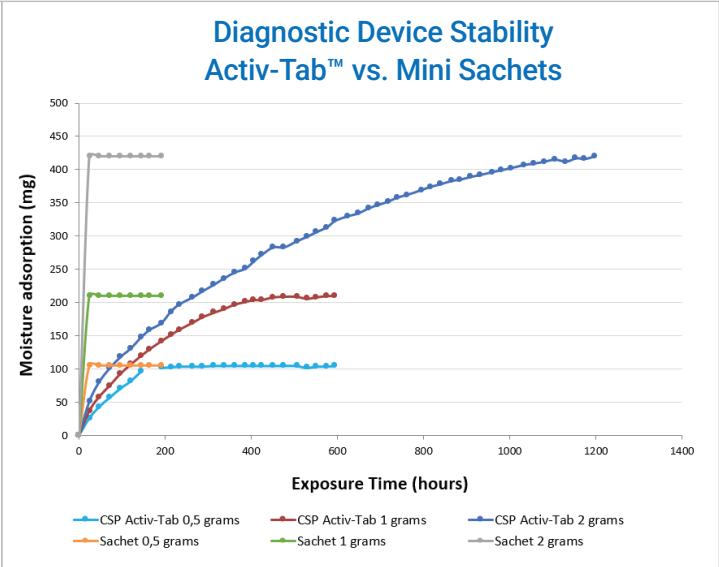


Weeks at 45°C	With No Activ-Film™ in Strip (%)	With Activ-Film™ in Strip (%)
0	100	100
2	42	90
4	38	55
6	20	65
8	18	60
10	20	60
12	15	55
14	15	55
16	12	50

Activ-Tab™ integrated into cassette



Diagnostic Device Stability Activ-Tab™ vs. Mini Sachets

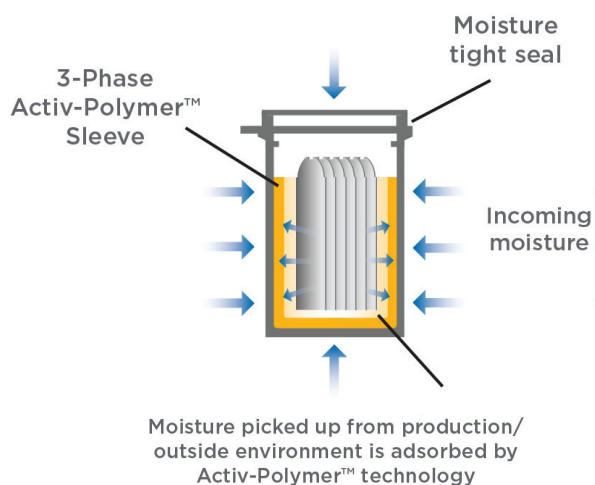


Exposure Time (hours)	CSP Activ-Tab 0,5 grams	CSP Activ-Tab 1 grams	CSP Activ-Tab 2 grams	Sachet 0,5 grams	Sachet 1 grams	Sachet 2 grams
0	0	0	0	0	0	0
200	100	150	200	100	200	420
400	100	200	300	100	200	420
600	100	200	350	100	200	420
800	100	200	380	100	200	420
1000	100	200	400	100	200	420
1200	100	200	420	100	200	420
1400	100	200	420	100	200	420

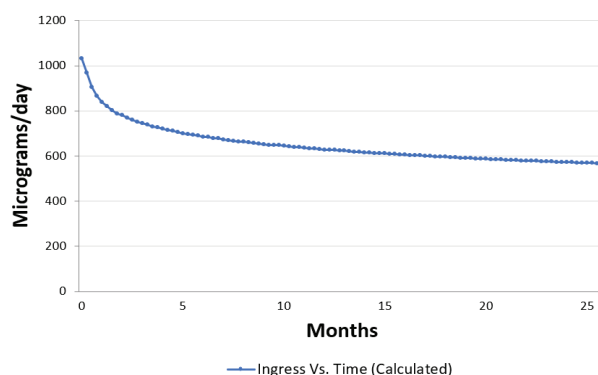
Activ-Vial™ Technology: Co-molded vials with integrated 3-Phase Activ-Polymer™ technology to protect test strips in use and throughout shelf life.



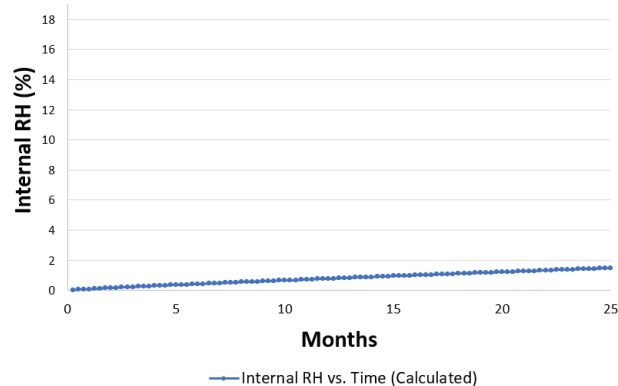
CSP™ Activ-Vial™ Portfolio



Activ-Vial™ Moisture Ingress Over Time



Activ-Vial™ Internal RH Over Time



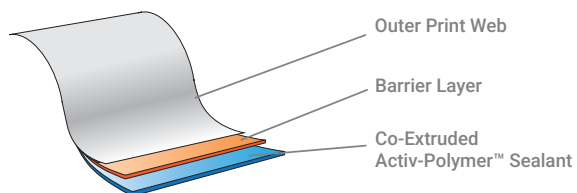
ActiFlex High-Performance Film:

- Flexible film packaging solution with built-in moisture protection for diagnostic cassettes
- Ready-to-deploy on existing high-speed flexible packaging filling lines as roll stock or pre-formed pouch

ActiFlex Flexible Film Solution

High-Performance Moisture Adsorbing Film Powered by

3-Phase Activ-Polymer™ Technology



In collaboration with



Relative Humidity Performance Comparison

21°C, 53% RH / 66" x 4" Formed Pouch

