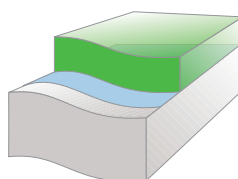


# Pentapharm® ACLAR® barrier films

Pentapharm® ACLAR®-laminated rigid films offer unsurpassed protection against moisture in formulations designed to improve performance and reduce costs. At kp, we exist to help you succeed. With our innovative Pentapharm® ACLAR® line of films, you get outstanding quality with significant productivity gains.

## Pentapharm® ACLAR® 02

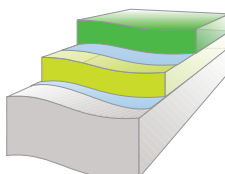
Structure:	Two-layer PVC/ACLAR® structure
Barrier Rating:	Mid to ultra, ultra high degree of barrier to moisture, gas, and aroma



Two-layer ACLAR®

## Pentapharm® ACLAR® 03

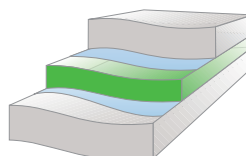
Structure:	Three-layer PVC/PE/ACLAR® structure
Barrier Rating:	Mid to ultra high degree of barrier to moisture, gas, and aroma



Three-layer ACLAR®

## Pentapharm® ACLAR® S03

Structure:	Symmetrical PVC/ACLAR®/PVC
Moisture Barrier:	Ultra high
Oxygen Barrier:	Mid
Thermoformability:	High
Sealability:	Mid (both sides)
Special Features:	<ul style="list-style-type: none"> <li>• Symmetrical structure increases productivity; designed to operate in the same forming range as PVC mono film</li> <li>• Better material flow during thermoforming</li> <li>• Improved barrier (up to 20%) in formed blister</li> <li>• Symmetrical film improves lay-flatness &amp; eliminates the need for wind orientation; avoids costly operations errors</li> <li>• Both sides are sealable via heat-seal or ultrasonic sealing</li> <li>• Product contact layer is PVC</li> <li>• Sealable to all standard PVC compatible lid stocks</li> <li>• Processable on standard PVC tooling; no need for ceramic or other coatings</li> <li>• Eliminates production issues</li> <li>• High-speed productivity gains with barrier range of low to ultra high</li> </ul>



## Polymers:

Multi-layer structures

Customized structures available upon request

## Applications:

Ethicals, OTC, generics, physician samples, veterinary, nutraceuticals

## General Properties:

Moisture Barrier:	Mid to ultra, ultra high
Oxygen Barrier:	Mid to ultra, ultra high
Thermoformability:	Mid to high
Sealability:	Mid (PVC side only)
Sterilization:	EtO

## Performance Features:

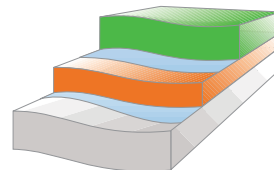
- High transparency, clear film
- Exceptional moisture barrier
- Non-aging
- Provides cost savings opportunities
- Two-layer ACLAR® films eliminate the PE layer reducing gauge, improving machinability & producing higher yields while lowering costs
- Possible 40% reduction in surface area of the blister allowing up to 30% higher machine output
- Low cost for tooling & production equipment
- Available in clear, transparent colors & opaque colors
- Runs on standard equipment & tooling
- Optimized secondary packaging for minimized blister card size



# Pentapharm® ACLAR® barrier films

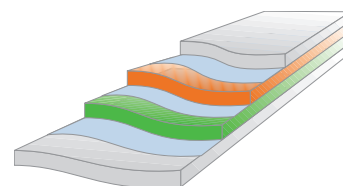
## Pentapharm® ACLAR® G03

Structure:	PVC/PE-EVOH-PE/ACLAR® structure
Moisture Barrier:	Ultra high
Oxygen Barrier:	Ultra high
Thermoformability:	Mid
Sealability:	Mid
Special Features:	<ul style="list-style-type: none"><li>• Transparent clear film with high contact clarity</li><li>• Exceptional moisture and oxygen barrier</li></ul>



## Pentapharm® ACLAR® G04

Structure:	PVC/ACLAR®/PE-EVOH-PE/PVC structure
Moisture Barrier:	Ultra high
Oxygen Barrier:	Ultra high
Thermoformability:	Mid
Sealability:	Mid
Special Features:	<ul style="list-style-type: none"><li>• Transparent clear film with high contact clarity</li><li>• Exceptional moisture and oxygen barrier</li><li>• Designed for application where cross-diffusional moisture intake needs to be minimized (i.e., small flange blisters requiring ultra-high barrier)</li></ul>



■ PVC    ■ Adhesive  
■ ACLAR®    ■ PE-EVOH-PE

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