

# Pentapharm® Overview Grid

## Pharmaceutical Packaging Films



PRODUCT	STRUCTURE					PROPERTIES				
	Name & Polymer	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Moisture Barrier	Oxygen Barrier	Thermoforming Performance	Sealability Side 1 / Side 2
<b>Mono Films</b>										
Pentapharm® PVC 570, 170 Series	PVC 150-300 µm	-	-	-	-	-	○	◐	◐	◐ / ◐
Pentapharm® PVC 576, 580 Series	PVC 150-300 µm	-	-	-	-	-	○	◐	◐	◐ / ◐
Pentapharm® PVC 577, 177 Series	PVC 150-500 µm	-	-	-	-	-	○	◐	◐	◐ / ◐
Pentapharm® PVC 578, 178 Series	PVC 250-600 µm	-	-	-	-	-	○	◐	◐	◐ / ◐
Pentapharm® PVC 579 Series	PVC 150-500 µm	-	-	-	-	-	○	◐	◐	◐ / ◐
Pentapharm® PVC 186 Series	PVC 60 µm	-	-	-	-	-	○	◐	(n/a: cold form)	◐ / ◐
Pentapharm® PVC 588 Series	PVC 30-100 µm	-	-	-	-	-	○	◐	(n/a: cold form)	◐ / ◐
<b>Barrier Films – ACLAR® Laminated Films</b>										
Pentapharm® ACLAR® O2 Series	PVC 191-381 µm	ACLAR® 15-152 µm	-	-	-	-	●	◐	◐	◐ / ○
Pentapharm® ACLAR® O3 Series	PVC 191-381 µm	PE 51 µm	ACLAR® 15-76 µm	-	-	-	●	◐	◐	◐ / -
Pentapharm® ACLAR® S03 Series	PVC 127 µm	ACLAR® 15-102 µm	PVC 127 µm	-	-	-	●	◐	◐	◐ / ◐
Pentapharm® ACLAR® G03 Series	PVC 191-254 µm	PE-EVOH-PE 70 µm	ACLAR® 51-102 µm	-	-	-	●	◐	◐	◐ / -
Pentapharm® ACLAR® G04 Series	PVC 127 µm	ACLAR® 51-152 µm	PE-EVOH-PE 51µm	PVC 60 µm	-	-	●	◐	◐	◐ / ◐

ACLAR® is a registered trademark of Honeywell International Inc.



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<b>Barrier Films – alfoil® Coated PVdC Films</b>										
Pentapharm® alfoil® P SG Series	PVC 200-600 µm	PVdC 40-80 g/m <sup>2</sup>	-	-	-	☐	☐	☐	☐ / ☐	
Pentapharm® alfoil® T SG Series	PVC 200-500 µm	PE 25-30 µm	PVdC 40-120 g/m <sup>2</sup>	-	-	☐	☐	☐	☐ / ☐	
Pentapharm® alfoil® TS Series	PVC 100-400 µm	PVdC 40-120 g/m <sup>2</sup>	PE 40 µm	-	-	☐	☐	☐	☐ / ☐	
Pentapharm® alfoil® X SG Series	PVC 200-500 µm	PVdC 90-120 g/m <sup>2</sup>	-	-	-	☐	☐	☐	☐ / ☐	
Pentapharm® alfoil® E S03 Series	PVC 127 µm	PVdC 120-180 g/m <sup>2</sup>	PVC 127 µm	-	-	☐	●	☐	☐ / ☐	
Pentapharm® alfoil® ET SG Series	PVC 200-300 µm	PE 25-30 µm	PVdC 120-180 g/m <sup>2</sup>	-	-	☐	●	☐	☐ / ☐	
Pentapharm® alfoil® FS Series	PVC 100 µm	PE 30 µm	PVdC 180 g/m <sup>2</sup>	PE 30 µm	PVC 100 µm	☐	☐	☐	☐ / ☐	
<b>Barrier Films – Specialty Films</b>										
Pentapharm® kpSilver™ Series	PVC 200-500 µm	Polyolefin 25 µm	ACLAR® 15-152 µm	-	-	○	☐	☐	☐ / ○	
Pentapharm® Accel™ Series	PVC 254 µm	43 µm, 137µm	-	-	-	●	☐	☐	☐ / -	
Pentapharm® alfoil® Flex SG Series	PVC 250 µm	TE 5 g/m <sup>2</sup>	PVdC 60-120 g/m <sup>2</sup>	-	-	☐	●	☐	☐ / ☐	
Pentapharm® kpMax® S04 Series	PVC 100 µm	ACLAR® 102 µm	PVdC 150 g/m <sup>2</sup>	PVC 100 µm	-	●	☐	☐	☐ / ☐	
Pentapharm® LiquiGuard™ Series	Copolyester 200-500 µm	ACLAR® 15-152 µm	PVC 60 µm	-	-	●	☐	☐	☐ / ☐	
Pentapharm® kpSeal™ Speel Series	PVC 100-127 µm	PE 40 µm (±16.7%)	-	-	-	○	○	☐	☐ / ●	

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<b>Sustainable Films</b>										
Pentapharm® kpVantage® MG00 Polyester Series	PETG 200-400 µm	-	-	-	-	-				/
Pentapharm® ACLAR® kpVantage® Series	PETG 254-381 µm	ACLAR® 15-152 µm	-	-	-	-				/ -
Pentapharm® kpNext™ R1	PET 250-400 µm	-	-	-	-	-				/
Pentapharm® kpNext™ RB5	PP 30µm	COC 240 µm	PP 30µm	-	-	-				/