	Grade	Grammage [g/m²]	Thickness [µm]	Archivability [years]	Sensitivity <sup>1)</sup>	Resistance	UV-offset-printable	Special features	Typical applications	
ted	KL 49	108	113	25	4	++	✓		<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> </ul>	■ parking tickets for carparks and parking spaces
opcoated	KL 410	112	120	25	4	++	✓		<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> </ul>	■ tags (non self-adhesive) ■ data-carriers for logistical purposes ■ boarding passes
	KL 412	131	142	25	4	++	1		<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>parking tickets for carparks and parking spaces</li> </ul>	■ tags (non self-adhesive) ■ data-carriers for logistical purposes ■ boarding passes
	KL 415	172	180	25	4	++	1		<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>parking tickets for carparks and parking spaces</li> </ul>	■ tags (non self-adhesive) ■ data-carriers for logistical purposes ■ boarding passes
	KL 421	225	235	25	4	++	1		■ admission tickets for cinemas, theatres, sports and other cultural events	■ tags (non self-adhesive) ■ data-carriers for logistical purposes
	KL 423mB	256	270	25	4	++	/	■ for magnetic strips in slurry-form	■ travel tickets for buses and trains	
	KL 515	172	180	25	5	++	1	■ designed for 300 dpi thermal printers	■ admission tickets for cinemas, theatres, sports and other cultural events	■ travel tickets for buses and trains ■ boarding passes
	KL 69	104	110	15	6	++	1		■ cashless gaming tickets	■ lottery and other gambling tickets
	KLS 44B	55	63	25	4	++	✓	■ protection against external influences from the reverse side	■ self-adhesive labels	■ composite materials (laminates)
	KLS 46	71	82	25	4	++	1		■ self-adhesive labels ■ linerless labels ■ lottery and other gambling tickets ■ baggage tags	<ul> <li>parking tickets for carparks and parking spaces</li> <li>travel tickets for buses and trains</li> <li>composite materials (laminates)</li> <li>bank statements</li> </ul>
	KLS 46B	72	82	25	4	++	✓	■ protection against external influences from the reverse side	■ self-adhesive labels ■ composite materials (laminates)	■ baggage tags
	KLS 56	76	82	12	5	+	✓	■ designed for 300 dpi thermal printers	<ul><li>travel tickets for buses and trains</li><li>self-adhesive labels</li><li>linerless labels</li></ul>	■ composite materials (laminates) ■ bank statements
	KLS 56B	74	82	12	5	+	✓	<ul> <li>protection against external influences from the reverse side</li> <li>designed for 300 dpi thermal printers</li> </ul>	■ self-adhesive labels	■ composite materials (laminates)
	KLSG 57	81	87	12	5	+	✓	■ designed for 300 dpi thermal printers	■ lottery and other gambling tickets	
	KLR 44	59	63	15	4	++	✓	■ heat-resistant	■ digital tachographs	
	KLIR 46B	75	82	15	4	++	✓	■ IR-readable thermal image ■ protection against external influences from the reverse side	■ self-adhesive labels	■ composite materials (laminates)
	KLRB 46B	74	80	10	4	+	✓	<ul> <li>two-colour, red-black thermal image</li> <li>protection against external influences from the reverse side</li> </ul>	■ self-adhesive labels ■ linerless labels	■ composite materials (laminates) ■ boarding passes

1) Key: 6 very high sensitivity, 5 high sensitivity and 4 standard sensitivity,

++ very good resistance, + good resistance, 
possible and (
) possible with limitations.
The above-listed values for physical characteristics are average values. Samples and current technical datasheets are available on request.

This is our standard portfolio. For further options do not hesitate to contact us personally.

NOTES										



	Grade	Grammage [g/m²]	Thickness [µm]	Archivability [Jahre]	Sensitivity <sup>1)</sup>	Resistance	UV-offset-printable	Special features	Typical applications		
ted	KP 460	70	78	7	4			■ stampable and therefore validation-capable	<ul> <li>self-adhesive labels</li> <li>parking tickets for carparks and parking spaces</li> <li>travel tickets for buses and trains</li> </ul>	■ composite materials (laminates) ■ vouchers and receipts	
pcoate	KP 465	79	86	7	4			■ stampable and therefore validation-capable	<ul> <li>self-adhesive labels</li> <li>parking tickets for carparks and parking spaces</li> <li>travel tickets for buses and trains</li> </ul>	■ composite materials (laminates) ■ vouchers and receipts	
l do	KP 460(NP)	71	80	12	4	+	(√)	■ stampable and therefore validation-capable	<ul> <li>self-adhesive labels</li> <li>parking tickets for carparks and parking spaces</li> <li>travel tickets for buses and trains</li> </ul>	■ composite materials (laminates) ■ vouchers and receipts	
Non	KPR 440	53	61	10	4			■ stampable and therefore validation-capable	<ul> <li>self-adhesive labels</li> <li>composite materials (laminates)</li> <li>long-term archivable data records</li> </ul>	■ data records ■ POS	
	KPR 460	70	80	10	4			■ stampable and therefore validation-capable	■ self-adhesive labels ■ composite materials (laminates) ■ long-term archivable data records	■ data records ■ POS	
	KPR 460B	70	80	10	4			■ protection against external influences from the reverse side	■ self-adhesive labels	■ composite materials (laminates)	
	KPR 470	89	101	10	4			stampable and therefore validation-capable stampable and therefore validation-capable	■ lottery and other gambling tickets	■ travel tickets for buses and trains	
									admission tickets for cinemas, theatres, sports and other cultural events		
	KPR 490		112		4			stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> </ul>	■ parking tickets for carparks and parking spaces ■ lottery and other gambling tickets	
	KPR 410		120		4			stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> </ul>	<ul> <li>parking tickets for carparks and parking spaces</li> <li>tags (non self-adhesive)</li> <li>data-carriers for logistical purposes</li> </ul>	
	KPR 412	133	142	10	4			■ stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>parking tickets for carparks and parking spaces</li> </ul>	<ul> <li>tags (non self-adhesive)</li> <li>data-carriers for logistical purposes</li> <li>boarding passes</li> </ul>	
	KPR 415	175	185	10	4			■ stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>parking tickets for carparks and parking spaces</li> </ul>	<ul> <li>tags (non self-adhesive)</li> <li>data-carriers for logistical purposes</li> <li>boarding passes</li> </ul>	
	KPR 540	53	61	10	5			stampable and therefore validation-capable	■ long-term archivable data records	■ data records ■ POS	
	KPO 460	72	80	10	4	+	1	stampable and therefore validation-capable	■ vouchers and receipts ■ travel tickets for buses and trains	■ lottery and other gambling tickets	
	KPO 490	104	115	10	4	+	1	stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> </ul>	■ parking tickets for carparks and parking spaces	
	KPO 412	134	142	10	4	+	1	■ stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>tags (non self-adhesive)</li> </ul>	■ data-carriers for logistical purposes ■ boarding passes	
	KPO 415	170	182	10	4	+	1	stampable and therefore validation-capable	<ul> <li>travel tickets for buses and trains</li> <li>admission tickets for cinemas, theatres, sports and other cultural events</li> <li>tags (non self-adhesive)</li> </ul>	<ul> <li>data-carriers for logistical purposes</li> <li>boarding passes</li> </ul>	
	KPW 460	71	80	25	4	+	(✔)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces ■ travel tickets for buses and trains		
	KPW 490	104	112	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces ■ travel tickets for buses and trains		
	KPW 412	134	142	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces ■ travel tickets for buses and trains	■ boarding passes	
	KPW 415	175	185	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces	■ boarding passes	
	KPW 417	192	215	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces ■ tags (non self-adhesive)	■ data-carriers for logistical purposes	
	KPW 421	220	235	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	■ parking tickets for carparks and parking spaces ■ tags (non self-adhesive)	■ data-carriers for logistical purposes	
	KPW 423	247	265	25	4	+	(√)	<ul> <li>very good resistance to heat</li> <li>very good wet rub stability</li> <li>good resistance to light</li> <li>good resistance under extreme climatic conditions</li> <li>stampable and therefore validation-capable</li> </ul>	<ul> <li>parking tickets for carparks and parking spaces</li> <li>data-carriers for logistical purposes</li> </ul>	■ travel tickets for buses and trains	
POS	KF 50 & ₩	54	61	7	5			■ writable and stampable	■ vouchers and receipts ■ fax applications	■ data records ■ POS	



## Selection of recommended printing inks

Manufacturer	Ink series	KP/KPR grades	KPO/KPW grades	All Topcoated grades
Flint Group	Water Based Flexo			
	Thermokett TC			
	UV Flexo			
	Flexocure FORCE	1	1	2
	Flexocure GEMINI	1	1	2
	Flexocure ANCORA (LM)	1	1	2
	Flexocure ANCORA 50 (LM)	1	1	2
	UV Offset			
	Lithocure Premium		3	
	Lithocure ANCORA LP (LM)		3	
	UV Letterpress			
	Lithocure Premium		3	
	Lithocure ANCORA LP (LM)		3	
GSB-Wahl	Water Based Flexo			
	Thermo Label Series TL			
	UV Flexo			
	UV Labelflex Series 81 MA (LM)	1	1	
	UV Offset; UV Letterpress			
	UV Series 6400 MA (LM)		3	
hubergroup	UV Flexo			
	NewV flex UF4000	1	1	
	UV Offset			
	NewV pack UG4000		3	
	NewV pack UG5000		3	
	NewV pack MGA UG5000M		3	
Jänecke+Schneemann	UV Offset			
	Supra UV Series 569920-923		3	
	Supra UV Series 570160-163		3	
RODATZ FarbenFabrik	Water Based Flexo		<del>_</del>	
	Inkseries 4 WT (with cross-linker 21010)			
Siegwerk	Water Based Flexo			
	Aqualabel HK (with cross-linker)			
	UV Flexo			
	SICURA Flex 39-8	1	1	
	SICURA Nutriflex 10 (LM)	1	1	
	SICURA Nutriflex LEDTec (LM-LED)	1	1	
	UV Offset			
	SICURA Litho Nutriplast 2 (LM)		3	
	UV Letterpress			
	SICURA Typo 41-2		3	
ZELLER+GMELIN	UV Letterpress			
	UVFLEX Y80	1	1	
	UVFLEX Y81 (LM)	1	1	
	UV Offset; UV Letterpress	_		_
	UVALUX U40		3	
	UVALUX U41 (LM)		3	

LM = Low Migration

These specifications are recommendations by the ink manufacturers. We can assume no liability for their accuracy.

For product analyses and comparisons or detailed information on the processing of thermal papers, please do not hesitate to contact us. We will be glad to be of service.

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## Intelligent Paper





<sup>&</sup>lt;sup>1</sup> With UV-flexo ink on Non-Topcoated materials (KP, KPR, KPO and KPW), discolouration may occur, appearing even weeks or months after printing. Here we strongly recommend pretests. Complete drying, means cross-linking of the ink, must be guaranteed.

<sup>&</sup>lt;sup>2</sup> Through addition of the additive FLINT GROUP UAA00117, ink adhesion can be improved. Please consult the manufacturer's specification.

<sup>&</sup>lt;sup>3</sup> The UV-offset printability of KPW grades is limited. The result depends essentially on the layout, the machine settings and conditions. Printing tests are necessary.