



# **Printing Ink Distillates**

# PKWF® products from Haltermann Carless offer an extensive range of printing ink distillates for all types of heatset, coldset and sheetfed applications.

Our PKWF portfolio provide inkmakers with a choice of characteristics to meet the requirements of their particular ink formulations, balancing the processing and product performance by the distillate. Narrowly defined distillation ranges from 220 °C to 360 °C allow maximum control at the drying stage, and their broad solvency spectrum

ranges from the low to medium aromatic distillates with a wide broad range of solvency charactistics defined by the aniline point. This provides the flexibility essential to address the varying mineral oil tolerances of printing ink resins. Tailored boiling range, aniline point and aromatic level all help to optimise the formulation of the finished ink.

### Low Aromatic Distillates

Where lower aromatic inks are required, such as to comply with Blue Angel regulations or for more sensitive printing applications such as food packaging, where taint or odour are critical, Haltermann Carless provides a wide range of distillates suitable for use with a range of resin

systems. As part of its commitment to supporting the industry, Haltermann Carless is also well advanced in its development of ECOBASE printing ink distillates from sustainable, bio-based raw materials rather than mineral oil.

Typical Properties		PKWF 24/30	PKWF 2/4 AFH	PKWF 4/7 AFH	PKWF 5/9 AFH	PKWF 6/9 AFH	PKWF 28/32 AFH	PKWF 28/36 AFH
Middle Distillate Type	Method	Medium Aromatic	Low Aromatic (Hydrogenated)					
Product Code		378772	379523	379550	379524	379525	380072	Product
Appearance	Visual	Clear & colourless	Clear & colourless					
Colour (Saybolt)	ASTM D 156	30	30					
Initial Boiling Boint (IBP)	ASTM D86	240 °C	220 °C	235 °C	250 °C	260 °C	280 °C	280 °C
Final Boiling Boint (FBP)	ASTM D86	300 °C	243 °C	275 °C	295 °C	295 °C	320 °C	360 °C
Density at 15 °C	EN ISO 12185	830 kg/m³	820 kg/m <sup>3</sup>	820 kg/m <sup>3</sup>	820 kg/m <sup>3</sup>	820 kg/m <sup>3</sup>	820 kg/m <sup>3</sup>	820 kg/m <sup>3</sup>
Flash Point (PM)	EN ISO 2719	min. 100 °C	min. 80 °C	min. 100 °C	min. 110 °C	min. 110 °C	min. 130 °C	min. 130 °C
Aniline Point	ISO 2977	80 °C	72 °C	78 °C	84 °C	87 °C	94 °C	98 °C
Kinematic Viscosity at 40 °C	DIN 53015		1.9 mm <sup>2</sup> /s	2.5 mm <sup>2</sup> /s	3.0 mm <sup>2</sup> /s	3.3 mm <sup>2</sup> /s	4.5 mm <sup>2</sup> /s	5.5 mm <sup>2</sup> /s
Aromatic Content (UV)	HM-14-Labor	max. 18 %w (IR)	max. 0.2 %w	max. 1.0 %w	max. 0.5 %w	max. 1.0 %w	max. 1.0 %w	max. 1.0 %w
CAS. Number	ASTM	64742-13-8 64741-44-2	64742-47-8	64741-91-9 64742-46-7 64742-47-8	64741-91-9 64742-46-7 64742-47-8	64741-91-9 64742-46-7 64742-47-8	64741-91-9 64742-46-7	64741-91-9 64742-46-7
EC Number	ASTM	920-360-0	926-141-6	927-632-8	927-632-8	927-632-8	919-029-3	919-029-3

Listed Product data are typical values and may vary according to specification requirements.



Typical Properties	Method	ECOBASE 2430	ECOBASE 2428	
Density, 15°C	EN ISO 12185	781,8 kg/m³	779,0 kg/m³	
Refractive index	ASTM D 1218	1,43657	1,43483	
Color (Saybolt)		30	30	
Flash point	EN ISO 2719	123,0 °C	118,0 °C	
Aromatics*	UOP 495	70 mg/kg	55 mg/kg	
Pour Point	ASTM D97	max40 °C	max40 °C	
Kinematic Viscosity at 20°C	EN ISO 3104	5,019 mm²/s	4,255 mm²/s	
Kinematic Viscosity at 40 °C	EN ISO 3104	3,206 mm²/s	2,895 mm²/s	
Distillation, IBP	EN ISO 3405	261,2 °C	253,0 °C	
Distillation, FBP	EN ISO 3405	296,4 °C	288,2 °C	
Aniline Point	ISO 2977	97,6 °C	95,9 °C	
Bromine Index	DIN 51774	28 mg/100g Br	25 mg/100g Br	

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## Test Oils

Exacting specification test oils in the distillation range of 260 °C to 290 °C have been developed together with leading resin and printing ink manufacturers in the Eurocommit working group, and are readily available in smaller packages. Test oils are used with Eurocommit methods

for the measurement of precipitation temperature and varnish viscosity, offering the industry the possibility of using consistent standards for quality control of printing ink resins both by the manufacturer and by the user.

### Commitment

Assured quality and guaranteed performance, backed up by experienced technical and development resources, provide continued development and the best possible support for our customers' individual requirements. Haltermann Carless PKWF® distillates are produced from specifically selected feedstocks and dedicated

refining processes and are designed to provide ink manufacturers with a number of significant benefits. Where a standard distillate may not exactly correspond to your formulation requirements, please do not hesitate to contact Haltermann Carless to discuss a customised product to match your needs.

# Packaging

All products are available direct from our refineries in bulk tanker or packed in drums. Other types

of packaging are available on request - please contact your nearest sales office.



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#### More about our Printin Ink Distillates:

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