

Various Ink types and Color Inks - All inks are based on RoHS

Ink Group	Name of ink	Color	Makeup ink		Adaptable nozzle & applicable ambient temperature (L Adaptable)					Drying time at 20°C (s) ²	Light Stability		Primary applications (Features)	
			TYPE	Solvent base	PXR-D for Small Characters 65μ	PXR-D for Micro Characters 40μ	PXR-D for Middle-size Characters 100μ	PXR-P for Pigmented Ink 65μ	PXR-H for High-speed printing 55μ		Test conditions	Result		
General purpose inks	JP-K68 [®]	Black	TH-TYPE F	Ethanol	0-35 ° C ↓	0-35 ° C ↓	0-35 ° C ↓		0-35 ° C ↓	15 to 30	Same as 1 year in the sunshine	Discolored but legible	Carton, painted container, metal, etc. (Suitable for applications dislike for odor)	
	JP-K69	Black	TH-69	MEK	0-45 ° C ↓	0-35 ° C ↓	0-35 ° C ↓		0-40 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Can, paper, plastic container, pipe, steel plate (Chrome-complex dye free ink)	
	JP-K72	Black	TH-18	MEK	0-40 ° C ↓	0-35 ° C ↓	0-35 ° C ↓		0-40 ° C ↓	1 to 5	Same as 1 year in the sunshine	Discolored but legible	Plastic container, etc. It is highly adhesive to plastics, especially PP.	
	JP-K86	Black	TH-86	Acetone	0-35 ° C ↓	0-35 ° C ↓			0-35 ° C ↓	0.3 to 0.6	Same as 1 year in the sunshine	No change	Glass, plastics, metals and coated paper	
Special purpose inks	JP-B27	Blue	TH-TYPE C	MEK	0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	Discolored but legible	Various types of cans, (steel, aluminum, etc.) containers (paper, plastic, etc.), film (Nylon, PET, etc.) PVC pipes and various other materials (plastic, steel, nonferrous metals)	
	JP-B82	Blue	TH-82	MEK	0-35 ° C ↓				0-35 ° C ↓	2 to 3	Same as 2 weeks in the sunshine	Discolored but legible	Returnable bottles during the Cold Fill process (Washable with caustic wash)	
	JP-B85 [®]	Blue	TH-TYPE C	MEK	0-35 ° C ↓					1 to 5	Same as 1 year in the sunshine	No change	Glass, plastics, metals and coated paper.	
	JP-B95	Vivid Blue	TH-18	MEK	0-35 ° C ↓					1 to 5	Same as 1 month in the sunshine	No change	Glass, plastics, metals and coated paper. Chrome substance and methanol are not contained.	
	JP-E78 [®]	Pink	TH-78	Ethanol	50-95 ° F/ 10-35 ° C ↓					15 to 30	Same as 2 weeks in the sunshine	Discolored but legible	Egg shell	
	JP-F63 [®]	Invisible	TH-18	MEK	0-35 ° C ↓							UV readable. ¹⁰ Fluorescent ink. It		Paper, plastics, metals, etc. Special marking for production control
	JP-F92	Invisible	TH-18	MEK	0-35 ° C ↓					1 to 3	Same as 1 month in the sunshine	No change	Paper, plastics, metals, etc. Special marking for production control. (It is illuminated in ultraviolet rays after printing.) Compared with the current JP-F63 ink, it dries fast.	
	JP-G27	Green	TH-TYPE A	MEK	0-35 ° C ↓				0-35 ° C ↓		1 to 5	Same as 8 months in the sunshine	No change	
	JP-K26	Black	TH-TYPE B	MEK	0-35 ° C ↓				0-35 ° C ↓		1 to 5	Same as 1 year in the sunshine	No change	Steel (Alkali soluble ink)
	JP-K28	Black	TH-TYPE A	MEK	0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Cans, PP-Sheet, PE-sheet, plastics (Retort-resistant, Wax-resistant)	
	JP-K33	Black	TH-18	MEK	0-35 ° C ↓	0-35 ° C ↓			0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Metals, plastics, PET laminated steel sheets (Non-migration)	
	JP-K60	Black	TH-60	Ethanol	0-35 ° C ↓					3 to 10	Same as 1 year in the sunshine	Discolored but legible		
	JP-K62	Black	TH-18	MEK	0-35 ° C ↓	0-35 ° C ↓			0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Glass bottles, etc. (Resistant to condensation after printing)	
	JP-K70	Black	TH-70	MEK	0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 6 month in the sunshine	Discolored but legible	Glass bottles, etc. (Alkali soluble ink, Sweating resistance on glass bottle)	
	JP-K84	Black	TH-84	MEK	0-35 ° C ↓	0-35 ° C ↓			32-95 ° F/ 0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Metal, electric wire and film (Non-migration, retort-resistant and alcohol-resistant after printing)	
	JP-K87	Black	TH-18	MEK	0-40 ° C ↓					1 to 5	Same as 1 year in the sunshine	No change	Glass, plastics, metals and coated paper (Resistant to Ethanol)	
JP-K88	Black	TH-71	MEK	32-95 ° F/ 0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Container made of PE such as food, the beverage, cosmetics, and the medicines		
JP-K90	Black	TH-TYPE E	MEK	0-35 ° C ↓	0-35 ° C ↓			0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	Metal, electric wire and film (Non-migration, retort-resistant and alcohol-resistant after printing)		
JP-R27	Red	TH-TYPE A	MEK	0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 8 months in the sunshine	Discolored but legible			
JP-T64	°	TH-18	MEK	0-35 ° C ↓					1 to 5	-	-		Ceramic, metals, resistors, etc. (Heat resistant up to 1,300°C after printing)	

JP-T71	Red-purple to blue ^{*11}	TH-71	MEK	0-35 ° C ↓					1 to 5	Same as 6 month in the sunshine	Discolored but legible	Can, plastic bag, aluminum bag, plastic cup, etc. (Thermochromic ink in retort process)
JP-T75	Black to Blue	TH-75	2-Pentanone Ethanol	0-35 ° C ↓				0-35 ° C ↓	1 to 5	Same as 2 weeks in the sunshine	Discolored but legible	Plastic, polypouches, tin-free steel, tin-plate, aluminum, glass, metal closures of various colors (Thermochromic ink in retort process)
JP-W73	White	TH-73	MEK	0-40 ° C ↓			0-40 ° C ↓		5 to 7	Same as 1 year in the sunshine	No change	Rubber hoses, plastic pipes, metal, glass, electric/electronic parts, etc. (White pigment ink)
JP-W89	White	TH-73	MEK	0-40 ° C ↓			0-40 ° C ↓		5 to 7	Same as 1 year in the sunshine	No change	
JP-Y91	Yellow	TH-84	MEK	0-35 ° C ↓	0-35 ° C ↓	0-35 ° C ↓	0-35 ° C ↓	0-35 ° C ↓	1 to 5	Same as 1 year in the sunshine	No change	
JP-Y94	Yellow	TH-TYPE E	MEK	0-35 ° C ↓	0-35 ° C ↓		0-35 ° C ↓		1 to 5	Same as 1 year in the sunshine	No change	

*1 MEK: Methyl Ethyl Ketone

*2 Note that the drying speed varies depending on shapes and materials of the printing object, and environment.

*3 Hue and adhesion of the ink should be confirmed by printing samples in advance.

Please ask Hitachi distributor when you need the printing samples.

*4 Please follow the law of the country when you use and dispose of the inks.

*5 Please read the Material Safety Data Sheet (MSDS) before you use the inks.

The MSDS can be obtained from the web site or inquire the nearest Hitachi distributors.

*6 Please supply clean and dry air from the air purge connection port at the rear of the console because the ink is hygroscopic.

Please refer to the instruction manual for details.

*8 Requires heat curing at 149-177°C between 30-60 minutes to meet the solvent resistance required by the specified Military Standard.

*9 Color of the printing varies depending on the heating temperature.

Brown (room temperature), Gray (500°C), light blue (300°C)

*10 Luminescence will be resumed by painting of the regenerating solution.

*11 The color changes from red purple to blue by retort processing.