Changelog:

16.10.2019	In 72000-00114 pg added to the list
26.08.2019	Ink 75000-00101 changed viscosity settings
24.07.2019	Most 50µm now require 3.6 bar instead of 3.8 bar
24.07.2019	Ink 78000-00101 released for JETRapid
24.07.2019	Ink 78000-00103 released for JETRapid
12.04.2019	Ink 70000-00802 (USA only) added
21.03.2019	Details of 70-156 changed

General information about inks and solvents:

1) *Shelf life of inks and solvents:*

Non-pigmented inks:	12 months
Pigmented ink:	6 months
Solvents:	36 months

2) *Pigmented Inks*

Pigmented inks must be shaken very well before filling into the printer!

3) *Storage of inks and solvents:*

The recommended storage temperature for the consumables is +10°C (50°F) to +25°C (77°F).

Higher storage temperatures could accelerate the aging of the ink and solvent and cause a higher vapour pressure inside the bottles, which cause an inflate of the bottle.

In general it should be avoided, that inks and solvents are a longer time stored or transported at temperatures below 0°C (32°F)

4) *Safety Advises:*

All inks and solvents are flammable liquids!

Any incorrect usage or misuse may result in danger of health of the operator or further people, as well as property damages.

All persons, which are entrusted with the handling, initial filling, commissioning, operating, service and maintenance must be specifically trained and qualified about the handling with ink and solvent.

Before the first usage of the printer in particular the operating manual as well as the safety data sheets (SDS) of the ink and solvent have to be read and noted.

				ENTRY LINE		Basic Line			Universal Line								High Speed Line													
				JET ONE	JET 1 Neo	JET2 NeoS	JET 2 Neo	JET3upMI			JET3up				JETRapid	JETRapid Speed+	Rapid Wire	Rapid Wire PI	Pressure	Falltime	Pressure	Falltime	Pressure	Falltime	Pressure	Falltime	Pressure	Falltime	Pressure	Falltime	Pressure	Falltime
			Available Nozzle size	70	70	60	70	35	40	50	60		70		55	50	50	60	35		40		50		50		55		60		70	
Color	INK	SOLVENT	DESCRIPTION (short form)	NPT	NPT	NPT	NPT	NPT	NPT	NPT	NPT	PT	NPT	PT	NPT	NPT	NPT	PT							RAPID						
black	70000-00101	77001-00030	standard universal ink, very dark blackness (HALOGEN-FREE)																3,8 bar	5500ms	3,8 bar	5500ms	3,6 bar	7000ms			4,8 bar	6500ms	3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00106	77001-00030	standard universal ink, creates very small drops, can penetrate a slightly film of oil																				3,6 bar	6500ms	4,8 bar	7000ms	4,8 bar	7000ms	3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00107	77001-00030	steam sterilization resistant, adhesion ink, very dark blackness, alcohol resistant																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00031	77001-00030	universal adhesion ink with wide range of usage, creates small drops																3,8 bar	5500ms	3,8 bar	5500ms	3,6 bar	7000ms			4,8 bar	7000ms	3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00115	77001-00114	MEK-free ink, very fast drying, can penetrate a slightly film of oil or condensed water																3,8 bar	5500ms	3,8 bar	5500ms	3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00118	77001-00030	UV-curable ink																										3,6 bar	8000ms	2,3 bar	8000ms
black	70000-00119	77001-00123	water washable ink (can be easily washed-off with pure water)																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00120	77001-00103	special PVC ink, "transfer secure", very good UV-stability																										3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00121	77001-00117	steam sterilization resistant ink, based on ethanol (Ketone-free)																				3,4 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00030	77001-00030	standard universal ink, very dark blackness																				3,8 bar	7000ms			4,8 bar	7000ms	3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00124	77001-00129	Ketone-free ink, based on ethylacetat => lower solvent consumption than MEK-ink																				3,6 bar	6200ms					3,6 bar	6200ms	2,3 bar	6200ms
black	70000-00126	77001-00030	with FDA conformity for food packaging																				3,6 bar	7500ms	4,8 bar	7000ms	4,8 bar	7000ms	3,6 bar	7500ms	2,3 bar	7500ms
black	70000-00134	77001-00030	alcohol resistant ink, very good adhesion on a wide range of plastic substrates																				3,8 bar	6500ms	4,8 bar	6500ms	4,8 bar	6500ms	3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00139	77001-00133	Wet Bottle ink / glass ink (washable with caustic soda)																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00141	77001-00030	special adhesion ink for PE, PP and other challenging plastic materials																										3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00142	77001-00030	special adhesion ink for PE, PP. Shows good scratch & wetness resistance																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00149	77001-00159	special black "security ink" which fluorescens green if activated with UV-light (at 365nm)																												2,3 bar	6800ms
black	70000-00152	77001-00125	Anti counterfeit ink for security applications. Also good on various plastics.																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00153	77001-00030	Teflon and Fluoropolymer ink. (speacial treatment rules apply)																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00154	77001-00030	Halogen free standard application ink																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00155	77001-00030	Heat resitant ink (up to 1000°C). Easier than 70-148 and with standard solvent.																										3,6 bar	8000ms	2,3 bar	8000ms
black	70000-00156	77001-00030	Ink for PE and PP materials. Extends the range of 141 and 142																										3,6 bar	7000ms	2,3 bar	7000ms
black	70000-00158	77001-00163	Special Standard ink based on MIPK																				3,6 bar	6000ms					3,6 bar	6000ms	2,3 bar	6000ms
black	70000-00165	77001-00030	Special PVC ink, "transfer secure", very good UV-stability - soft pigmented																										3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00197	77001-00030	Standard universal ink. For US Market only!																										3,6 bar	6500ms	2,3 bar	6500ms
black	70000-00801	77001-00871	standard universal ink, very dark blackness (HALOGEN-FREE)																												2,3 bar	7000ms
black	70000-00803	77001-00873	MEK-free ink, very fast drying.																												2,3 bar	7000ms
black	BT10441	BT10441S	AIRBUS released ink																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
grey	71000-00102	77001-00030	universal silver-grey ink, good contrast on black and also white surfaces																										3,6 bar	7000ms	2,3 bar	7000ms
grey	71000-00103	77001-00030	standard universal ink, grey (not visible on dark surfaces)																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
red	72000-00102	77001-00030	standard universal ink / almost not visible on dark surfaces																				3,6 bar	6500ms	4,8 bar	7500ms	4,8 bar	7500ms	3,6 bar	6500ms	2,3 bar	6500ms
red	72000-00109	77001-00109	red ink for egg shells with FDA confirmation																				3,6 bar	6500ms					3,6 bar	6500ms	2,3 bar	6500ms
red	72000-00112	77001-00114	red MEK-free universal ink																				3,6 bar	6000ms					3,6 bar	6000ms	2,3 bar	6000ms
red	72000-00114	77001-00030	PVC ink for wire & cable applications. Transfer secure.																										3,6 bar	6200ms	2,3 bar	6200ms
orange	73000-00101	77001-00030	heavy pigmented universal ink																										3,6 bar	6800ms	2,3 bar	6800ms
orange	73000-00103	77001-00142	visible light-orange ink / additionally fluorescent under UV-light																										3,6 bar	6200ms	2,3 bar	6200ms
orange	73000-00104	77001-00143	visible light-magenta ink / additionally fluorescent under UV-light																										3,6 bar	6200ms	2,3 bar	6200ms
orange	73000-00105	77001-00030	soft pigmented universal ink																												2,3 bar	6500ms
orange	73000-00106	77001-00162	invisible uv-ink (only visible under uv-light)																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	6500ms
yellow	74000-00105	77001-00030	universal ink, soft-pigmented, very good UV-stability																				3,6 bar	6500ms					3,6 bar	6500ms	2,3 bar	6500ms
yellow	74000-00110	77001-00030	light-yellow pigmented universal ink																										3,6 bar	8300ms	2,3 bar	8300ms
yellow	74000-00199	77001-00030	PVC ink for wire & cable applications. Transfer secure.																										3,6 bar	7000ms	2,3 bar	7000ms
yellow	74000-00111	77001-00030	yellow pigmented universal ink																										3,6 bar	7000ms	2,3 bar	7000ms
green	75000-00101	77001-00160	green ink for egg shells																										3,4 bar	7800ms	2,3 bar	7800ms
green	75000-00104	77001-00122	MEK-free universal green pigmented ink																										3,6 bar	7500ms	2,3 bar	7500ms
green	75000-00107	77001-00030	universal green ink (soft-pigmented) / almost not visible on dark surfaces																										3,6 bar	6500ms	2,3 bar	6500ms
blue	76000-00101	77001-00030	heat resistant up to 400°C, special PVC ink, limited alcohol resistant / hardly visible on dark surfaces																				3,6 bar	7500ms	4,8 bar	7000ms	4,8 bar	7000ms	3,6 bar	7500ms	2,3 bar	7500ms
blue	76000-00102	77001-00155	blue food grade ink (eatable ink) with FDA confirmation																				3,6 bar	7000ms					3,6 bar	7000ms	2,3 bar	7000ms
blue	76000-00103	77001-00030	invisible uv-ink (only visible under uv-light)																				3,6 bar	6500ms					3,6 bar	6500ms	2,3 bar	6500ms
blue	76000-00106	77001-00112	Blue diaper ink with wetness indicator																				3,8 bar	6500ms					3,6 bar	6500ms	2,3 bar	6500ms
blue	76000-00108	77001-00119	blue MEK-free universal ink																				3,6 bar	7500ms					3,6 bar	7500ms	2,3 bar	7500ms
blue	76000-00110	77001-00122	heavy pigmented universal ink with very good UV-stability, very good contrast																										3,6 bar	7000ms	2,3 bar	7000ms
blue	76000-00113	77001-00030	standard universal ink, dark blue / almost not visible on dark surfaces																				3,6 bar	6000ms					3,6 bar	6000ms	2,3 bar	6000ms
blue	76000-00114	77001-00030	standard universal ink, "royal-blue"/ almost not visible on dark surfaces																										3,6 bar	7300ms	2,3 bar	7300ms
blue	76000-00115	77001-00146	blue ink for egg shells																										3,6 bar	6700ms	2,3 bar	6700ms
blue	76000-00116	77001-00030	standard universal ink (Halogen-free) / almost not visible on dark surfaces																										3,6 bar	6000ms	2,3 bar	6500ms
blue	76000-00119	77001-00030	heavy pigmented light blue ink for PVC. Transfer secure																										3,6 bar	7500ms	2,3 bar	7500ms
blue	76000-00121	77001-00030	PVC ink for wire & cable applications. Transfer secure.																										3,6 bar	7000ms	2,3 bar	7000ms
thermoC	78000-00101	77001-00128	thermochromic ink, changes from black to blue after steam sterilization process																						4,8bar	6000ms	4,8 bar	6000ms	3,6 bar	6500ms	2,3 bar	6500ms
thermoC	78000-00103	77001-00128	thermochromic ink, changes from black to red after steam sterilization process																						4,8bar	6000ms	4,8 bar	6000ms	3,6 bar	6800ms	2,3 bar	6800ms
white	79000-00104	77001-00030	universal ink with very wide range of usability, very good contrast and adhesion																										3,6 bar	7500 ms	7500 ms	2,3 bar
white	79000-00106	77001-00107	universal ink, MEK-free, good contrast																										3,6 bar	7000 ms	7000 ms	2,3 bar
white	79000-00108	77001-00030	very good PVC-ink (vinyl ink), excellent contrast and adhesion, transfer-secure																										3,6 bar	7000 ms	7500 ms	2,3 bar
white	79000-00109	77001-00122	MEK-free universal ink																										3,6 bar	8000 ms	8000 ms	2,3 bar
white	79000-00114	77001-00157	universal "halogen-free" ink																										3,6 bar	7000 ms	7000 ms	2,3 bar
white	79000-00115	77001-00030	UV-curable ink																										3,6 bar	8000 ms	8000 ms	2,3 bar
white	79000-00117	77001-00158	heat-curable white pigmented ink (needs ~250°C for ~3sec. to dry/harden)																										3,6 bar	6500 ms	6500 ms	2,3 bar
white	79000-00118	77001-00030	Vulcanization resistant white pigmented ink																										3,6 bar	7000 ms	7000 ms	2,3 bar
white	79000-00119	77001-00030	PE and PP special ink. Also has a good wetness resistance.																										3,6 bar	7000 ms	7000 ms	2,3 bar
white	79000-00120	77001-00030	Wire & Cable ink for a wide range of materials in this market. Also certain PVC cables.																												7000 ms	2,3 bar
white	79000-00121	77001-00030	"Automotive fluid" resistant ink. (special rules apply - see ink list for details)																												6500 ms	2,3 bar
white	79000-00122	77001-00030	PVC ink for wire & cable applications. Transfer secure. Also works on some other materials																										3,6 bar	7000 ms	7000 ms	2,3 bar

INK LIST FOR DISTRIBUTORS

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
black	70000-00101		77001-00030		MEK		**standard universal ink, "halogen-free" ink,** excellent easy handling, very good blackness	standard universal ink, very dark blackness (HALOGEN-FREE) • very good ink for a wide range of applications • creates sometimes a larger dot spot / blurred dot (depending of the material) • can penetrate a slightly film of condensed humidity on metal cans and creates still a good adhesion • has shown a heat resistance of more than 600°C on a white ceramic (even though that the ink is not high temperature resistant in general) • resists a temperature of -196°C (-320°F) if stored in liquid Nitrogen			Halogen Free, heat, resistance,
black	70000-00106		77001-00030		MEK		**standard universal ink**	standard universal ink, creates very small drops, can penetrate a slightly film of oil • very good ink for a wide range of applications and materials (not applicable for PVC materials) • creates small/sharp drops • not as dark as the ink 70000-00101 • can sometimes penetrate a slightly film of oil • is quite good resistant about oil if printed on dry metal sheets • has shown sometimes surprising good adhesion on specific PE material and other "critical plastic materials"			small drops, film of oil, PE
black	70000-00107		77001-00030		MEK		**steam sterilization resistant, alcohol (IPA) resistant**, very good blackness	steam sterilization resistant, adhesion ink, very dark blackness, alcohol resistant • steam sterilization resistant ink • is also alcohol resistant (isopropyl alcohol [IPA]) • has a very good blackness • creates sometimes a larger dot spot / blurred dot (depending of the material)			steam, sterilisation, ipa,
black	70000-00031		77001-00030		MEK		**general purpose ink,** adhesion ink, very sharp typography, excellent easy handling,	universal adhesion ink with wide range of usage, creates small drops • creates small/sharp drops • very good adhesion on a wide range of materials and very often especially for "critical" plastic films and materials • is able to penetrate through a slightly film of water /condensed humidity (e.g. on yoghurt cups, beer bottles) • is able to penetrate a slightly oil-film on steel • resists a temperature of -196°C (-320°F) if stored in liquid Nitrogen • released from Coca-Cola India for "shrink foil applications"			small drops, film of water, film of oil, temperatur resistance,
black	70000-00115		77001-00114		Acetone		**MEK-free ink,** very fast drying time, very good blackness, conditional steam sterilization resistant	MEK-free ink, very fast drying, can penetrate a slightly film of oil or condensed water • faster drying time than MEK-based inks • can penetrate a slightly film of oil • is able to penetrate through a coating of potato dust or corn dust that is used as a parting powder in the plastic film industry (the inks 70-101 and 70-31 would be peeling) • good adhesion on a wide range of plastic films and substrates • has also shown a steam sterilization resistance and very good results on pet-food pouches			MEK Free, film of oil, steam, sterilization,

INK LIST FOR DISTRIBUTORS

COLOR	INK	SOLVENT	SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	Pigments NPT	Pigments PT	Tags KEYWORDS / MATERIAL
black	70000-00118	77001-00030	MEK		**UV-curable ink,** (will not dry / harden without the UV-light), **black pigmented**	UV-curable ink • after UV-curing very good resistance against several solvents, cleaners and other aggressive chemicals (like brake fluid, gasoline ….) • **UV-curing instructions:** after printing the UV curing inks, a few seconds must be allowed for the solvent to evaporate (1-2 seconds, depending on ambient conditions). The print should then be exposed to an undoped mercury UV-lamp (200-400nm wave length). The print will require from 1000mJ/cm² to cure completely. Full resistance properties of the print will depend on the power of the lamp. The full resistance properties will occur a few minutes after cure as the curing mechanism continues on after being exposed to the UV light. • ink must be protected from sunlight • needs from time to time special cleaning procedure on the electrodes inside the print head (with a brush and special cleaner 77001-00020) • **LED-lamps / LED-driers are not applicable for this ink type!!** • Needs special cleaning routine: this ink creates a kind of coating effect inside the charge electrode and have to be washed t herefore with special cleaner in regular intervals (with the help of a little brush). The cleaner has the part number 77001-00020. This cleaner must not enter to the ink hydraulic system and has to be washed off with plenty of water, after the cleaning process. !			uv, curable,
black	70000-00119	77001-00123	Ethanol		**water washable ink**	water washable ink (can be easily washed-off with pure water) • universal ink for printing a wide range of materials • ink can be washed-off with water very easily and does not cause any corrosion on steel • typical use on metal sheet (e.g. for automobile industry) or metal pipes • can be used also on all other kind of materials • is able to penetrate through an slightly film of oil on steel			water, washable, metal
black	70000-00120	77001-00103 (and special cleaner "77001-00020")	MEK		**PVC ink**, "transfer-secure" black pigmented ink very good light-fastness	special PVC ink, "transfer secure", very good UV-stability • very good adhesion on PVC • especially for PVC-cable applications (on coiled cable rings the print will not be copied on the "neighbor cable") => "transfer-fast" • contrast is lower than 70000-00101 • light-fastness (UV-stability): very good ("Blue Wool Scale" = 8 [means more than 2 years without any bleaching]) • best ink for "windows-spacer" application due to the excellent lightfastness • special application experience: quite good wash-resistant on cotton • **is listed and certified by BOEING** • Needs special cleaning routine: this ink creates a kind of coating effect inside the charge electrode and have to be washed therefore with special cleaner in regular intervals (with the help of a little brush). The cleaner has the part number 77001-00020. This cleaner must not enter to the ink hydraulic system and has to be washed off with plenty of water, after the cleaning process. • If the black color is not absolutely needed, we would recommend the dark blue PVC ink 76000-00101 which is a lot easier in the handling! • This ink needs maybe a shorter service interval, or at least an additional filter exchange (every 3 months) between the regular service interval / maintenance times.			PVC, uv-stability, Boing, transfer secure, silicon,
black	70000-00121	77001-00117	Ethanol		**steam sterilization resistant,** KETON-free ink, Low-VOC-ink,	steam sterilization resistant ink, based on ethanol (Ketone-free) • MEK- and KETON-free (based on ethanol) • steam sterilization resistant • contrast is lower than 70000-00107 ! • sometimes even good adhesion on specific PP-materials			Ketone-free, sterilization,
black	70000-00030	77001-00030	MEK		standard universal ink, very good blackness	standard universal ink, very dark blackness • very good universal ink for a wide range of applications • very dark blackness			multi purpose,
black	70000-00124	77001-00129	Ethyl-Acetate		KETONE-free ink, standard universal ink, Lower solvent consumption than MEK-based inks	Ketone-free ink, based on ethylacetat => lower solvent consumption than MEK-ink • less solvent consumption in comparison with MEK-based inks • longer drying time than MEK-based inks • used by e.g. MAGGI (NESTLE)			Ketone-free, Nestle,

INK LIST FOR DISTRIBUTORS

LEIBINGER

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
black	70000-00126		77001-00030		MEK	FDA Food and Drug Administration	FDA conform for food packaging (and even for direct food contact)	with FDA conformity for food packaging • meets the FDA and EU standards for printing on the outside of food packaging • for printing on food stuff packaging which comes even in direct contact with food • not applicable for the direct printing on food-stuff • not applicable on humid surfaces			FDA, Food,
black	70000-00134		77001-00030		MEK	IPA RESISTANT	alcohol (IPA) resistant ink, plastic film adhesion ink	alcohol resistant ink, very good adhesion on a wide range of plastic substrates • very good adhesion on a wide range of plastic films and substrates as well as on critical “technical polymer materials” • is alcohol resistant (isopropyl alcohol [IPA]) • shows also a conditional resistance against petrol/gasoline • not as dark as other standard black inks • **shows very often good adhesion on critical plastic materials, like e.g. PVC (not transfer secuer)**			alcohol, ipa, resistant, pvc
black	70000-00139		77001-00133		MEK	Coca-Cola 121°C	**“wet bottle ink”, washable by “caustic soda”, “Coca Cola”-approved,** steam sterilization resistant also a very good choice for a wide field of different plastics and metal surfaces	Wet Bottle ink / glass ink (washable with caustic soda) • best choice for glass bottles applications (“Coca Cola”-approved) • removable by washing with alkaline solutions (2% caustic soda) • for applications to print on re-usable bottles and containers (recycling system) in beverage and mineral water industry • quite good freezer/refrigeration resistant • **shows very often good adhesion on critical plastic materials, like e.g. PE and PVC (not transfer secuer)** • **also very good applicable on PVC (but specific samples have to be tested and judged about “transfer fastness”!)** • **has also shown very good adhesion on metal and sometimes even on oily metal surfaces**			bottle, glass, jar, pvc, pe, transfer secure,
black	70000-00141		77001-00030		MEK	5 PP PE	**special adhesion ink for PE and PP materials**	special adhesion ink for PE, PP and other challenging plastic materials • excellent and so far unrivalled adhesion on PE and PP materials!			pp, pe,
black	70000-00142		77001-00030		MEK	PE	**dhesion ink for PE and even oth**	special adhesion ink for PE, PP. Shows good scratch & wetness resistance • high scratch resistance • good resistance against condensate & wetness			pp, pe, wetness resitance
black	70000-00149		77001-00159		MEK / Ethanol	100% SECURED	Special **pigmented** “security-ink”, Black ink, additionally **fluorescents ink** green under special UV-light	special black "security ink" which fluorescens green if activated with UV-light (at 365nm) • special ink for “security-applications” • the black ink fluorescents in green under a special UV-light (must have a wavelength of exactly 365nm !) • runs just with 70µ-nozzle • **ensure that the product itself doesn’t fluorescence under the UV-light (otherwise the fluorescence of the ink cannot be seen)**			fluorecent, security, uv-light
black	70000-00152		77001-00125		MEK	100% SECURED	Special “**anti-counterfeit ink**” **(“migration-ink”)**	Anti counterfeit ink for security applications. Also good on various plastics. • High security ink that migrates the surface of the product. • Ink cannot be erased. A strong shadow remains. • Can be considered as permanent ink. • Especially for TETRA-packs as well as for PE and PP packaging materials. For PP consider some time for the effect.			security, tetra pack, pe, pp
black	70000-00153		77001-00030		MEK	NONSTICK	Special ink for TEFLON and Fluoropolymer. Needs post-treatment with heat.	Teflon and Fluoropolymer ink. (speacial treatment rules apply) • Special ink for TEFLON and Fluoropolymer-materials • Requires post-treatment with heat to obtain adhesion. o FEP & ETFE need about °300 o PTFE need about °400 Due to various variable factors, the exact temperature and dwell time needs to be identified case based • **Additional post-treatment with heat can even improve the adhesion.**			FEP, ETFE, BTFE,

INK LIST FOR DISTRIBUTORS

LEIBINGER

COLOR	INK	SOLVENT	SOLVENT BASE	CHARACTERISTICS	DESCRIPTION	Pigments NPT	Pigments PT	Tags KEYWORDS / MATERIAL
black	70000-00154	77001-00030	MEK	**standard universal ink, "halogen-free" ink,** Extends the range for further applications.	Halogen free standard application ink • very good ink for a wide range of applications			Halogen Free,
black	70000-00155	77001-00030	MEK	special heat resistant ink (up to 1000°C), **high pigmented ink,**	Heat resitant ink (up to 1000°C). Easier than 70-148 and with standard solvent. • special heavy-pigmented and heat resistant ink • Easier to handle than 70-148 and runs with standard solvent • For drying a post treatment of min °250 C for a minimum of 4 seconds required.			heat, resistant,
black	70000-00156	77001-00030	MEK	**special adhesion ink for PE and PP materials**	Ink for PE and PP materials. Extends the range of 141 and 142 • Excellent and so far unrivalled adhesion on PE and PP materials! • much faster drying time as the former PE-ink 70000-00140 (canceled) • current results placed this ink ahead of 141 and 142.			pe, pp,
black	70000-00158	77001-00163	MIPK	Special Standard ink based on **MIPK**	Special Standard ink based on MIPK • General purpose ink • Little longer drying time than MEK but faster than Ethanol			MIPK
black	70000-00165	77001-00030	MEK	PVC ink, "transfer-secure" black **soft pigmented** ink very good light-fastness	Special PVC ink, "transfer secure", very good UV-stability - soft pigmented • very good adhesion on PVC • especially for PVC-cable applications (on coiled cable rings the print will not be copied on the "neighbor cable") => "transfer-fast"			PVC,
black	70000-00197	77001-00030	MEK	standard universal ink, very good blackness	Standard universal ink. **For US Market only!** • very good universal ink for a wide range of applications • **Only available in the USA for Americas**			multi purpose,
black	70000-00801	77001-00871	MEK	**standard universal ink, "halogen-free" ink,** excellent easy handling, very good blackness	standard universal ink, very dark blackness (HALOGEN-FREE) • very good ink for a wide range of applications • creates sometimes a larger dot spot / blurred dot (depending of the material) • can penetrate a slightly film of condensed humidity on metal cans and creates still a good adhesion • has shown a heat resistance of more than 600°C on a white ceramic (even though that the ink is not high temperature resistant in general) • resists a temperature of -196°C (-320°F) if stored in liquid Nitrogen			Halogen Free, heat, resistance,
black	70000-00803	77001-00873	Accetone	MEK-free ink, very fast drying time	MEK-free ink, very fast drying. • faster drying time than MEK-based inks • good adhesion on a wide range of materials			
black	BT10441	BT10441S	MEK	AIRBUS-listed and approved ink	AIRBUS released ink • creates small/sharp drops • good adhesion on a wide range of materials • excellent easy handling			airbus, aero,
grey	71000-00102	77001-00030	MEK	Silver-grey **pigmented** ink, general purpose ink for white and black surfaces	universal silver-grey ink, good contrast on black and also white surfaces • universal usability on a wide range of materials • can be used on dark and light surfaces (appears on black surfaces with a good white contrast; on light surfaces it appears as an almost black ink) • can penetrate a slightly film of condensed humidity or even iced layers • has shown also good results as "wet bottle ink" and is quite good freezer/refrigeration resistant			contrast, pvc, wet, condensate
					standard universal ink, grey (not visible on dark surfaces)			photo, light,

INK LIST FOR DISTRIBUTORS

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
grey	71000-00103		77001-00030		MEK		standard universal ink	• grey ink for white or light surfaces (not applicable on dark surfaces!) • to use on products where a decent print is needed or on paper (e.g. photo-paper) with a minimum of „penetrated shadow“ on the rear side.			

INK LIST FOR DISTRIBUTORS

COLOR	INK	SOLVENT	SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	Pigments NPT	Pigments PT	Tags KEYWORDS / MATERIAL
red	72000-00102	77001-00030	MEK		standard universal ink	standard universal ink / almost not visible on dark surfaces • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces			
red	72000-00109	77001-00109	Ethanol		**egg shell ink, FDA conform**	red ink for egg shells with FDA confirmation • FDA-conform ink for printing on egg shells • is quite easy water-soluble and therefore the print on non-porous material has to be judged about the "smear-resistance" if in contact with humidity			egg, fda,
red	72000-00112	77001-00114	Acetone		**MEK-free ink,** standard universal ink	red MEK-free universal ink • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces			
red	72000-00114	77001-00030	MEK		red pigmented ink, standard universal ink	PVC ink for wire & cable applications. Transfer secure. • universal usability • perfect for use on black and white surfaces			
orange	73000-00101	77001-00030	MEK		orange pigmented ink, standard universal ink	heavy pigmented universal ink • universal usability • perfect for use on black and white surfaces			
orange	73000-00103	77001-00142	Ethanol		orange, fluorescent ink, also called "mailing ink"	visible light-orange ink / additionally fluorescent under UV-light • typically used as "mailing ink" for code printing on envelopes • the light-orange color is visible under daylight and additionally fluorescent under UV-light • on non-porously surfaces usable only after sample tests • not visible on dark surfaces			
orange	73000-00104	77001-00143	MEK		magenta, fluorescent ink, universal ink	visible light-magenta ink / additionally fluorescent under UV-light • typically used as "mailing ink" for code printing on envelopes • the light-magenta color is visible under daylight and additionally fluorescent under UV-light • not visible on dark surfaces			
orange	73000-00105	77001-00030	MEK		orange soft-pigmented ink, standard universal ink	soft pigmented universal ink • universal usability • perfect for use on black and white surfaces without necessity of a pigmented machine			
orange	73000-00106	77001-00162	Acetone		invisible ink, red UV-fluorescent ink, universal ink	invisible uv-ink (only visible under uv-light) • universal usability • best results when using 365nm wave length • good results also on white surface			
yellow	74000-00105	77001-00030	MEK		Yellow soft-pigmented ink, standard universal ink, very good "light-fastness"	universal ink, soft-pigmented, very good UV-stability • universal usability • perfect for use on black and white surfaces without necessity of a pigmented machine • light-fastness (UV-stability): very good ("Blue Wool Scale" = 8 [means more than 2 years without any bleaching])			
yellow	74000-00110	77001-00030	MEK		Light-yellow pigmented ink, standard universal ink	light-yellow pigmented universal ink • universal usability • perfect for use on black and white surfaces • the light-yellow color is a little bit more brilliant as the color of the ink 79000-00199			

INK LIST FOR DISTRIBUTORS

COLOR	INK	SOLVENT	SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	Pigments NPT	Pigments PT	Tags KEYWORDS / MATERIAL
yellow	74000-00199	77001-00030	MEK	GENERAL PURPOSE	yellow pigmented ink, standard universal ink,	PVC ink for wire & cable applications. Transfer secure. • universal usability • perfect for use on black and white surfaces		y	
yellow	74000-00111	77001-00030	MEK	3 PVC	VC-ink, pigmented, transfer secu	yellow pigmented universal ink • Special PVC-ink for wire, cables and other PVC-materials • Transfer secure. • Quite bright color. Especially for dark surface.		y	PVC,
green	75000-00101	77001-00160	Ethanol	MEK free 	Green egg-shell ink	green ink for egg shells • EC-conform ink for printing on egg shells (no FDA) • is quite easy water-soluble and therefore the print on non-porous material has to be judged about the “smear-resistance” if in contact with humidity	y		Egg,
green	75000-00104	77001-00122	Acetone	MEK free	Green-pigmented universal ink, MEK-free ink	MEK-free universal green pigmented ink • universal usability on a wide range of materials • perfect for use on black and white surfaces		y	
green	75000-00107	77001-00030	MEK	GENERAL PURPOSE	Dye-based green universal ink	universal green ink (soft-pigmented) / almost not visible on dark surfaces • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces	y		
blue	76000-00101	77001-00030	MEK	3 PVC	blue soft-pigmented ink, “transfer-fast” PVC-ink, also usable as universal ink, heat resistant up to 400°C	heat resistant up to 400°C, special PVC ink, limited alcohol resistant / hardly visible on dark surfaces • very good on PVC-cables and tubes (“transfer-fast”) • also universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces • heat resistant up to round about 400°C	y		PVC, heat resistant,
blue	76000-00102	77001-00155	Ehtanol	FDA Food and Drug Administration	blue eatable food-grade ink, FDA-conform	blue food grade ink (eatable ink) with FDA confirmation • FDA-conform ink for printing even direct on food-stuff • is quite easy water-soluble and therefore the print on non-porous material has to be judged about the “smear-resistance” if in contact with humidity	y		FDA,
blue	76000-00103	77001-00030	MEK		invisible ink, blue UV-fluorescent ink, universal ink	invisible uv-ink (only visible under uv-light) • universal usability • has limited “light fastness” (limited UV-fading stability) • the UV-light to activate/energize the fluorescent ink must have a wave-length of ~380nm. The sensor to detect the fluorescence of the ink must have a sensitivity according to the emitted light/colour of the ink. The sensitivity of the sensor should be at round about ~450-500nm to detect the blue fluorescent emission of the ink.	y		
blue	76000-00106	77001-00112	Ehtanol		Blue diaper ink.	Blue diaper ink with wetness indicator • Blue diaper ink • Wetness indicating ink to be used on diapers	y		Wetness indicator,
blue	76000-00108	77001-00119	Ehtanol	MEK free LOW I VOC	MEK-free universal ink, dye-based ink	blue MEK-free universal ink • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces	y		

INK LIST FOR DISTRIBUTORS

LEIBINGER

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
blue	76000-00110		77001-00122		Acetone		light-blue pigmented ink, universal MEK-free ink, high contrast ink, very good light-fastness	heavy pigmented universal ink with very good UV-stability, very good contrast • universal usability on a wide range of materials • can be used on dark and light surfaces and creates good contrast • light-fastness (UV-stability): very good ("Blue Wool Scale" = 8 [means more than 2 years without any bleaching])		y	
blue	76000-00113		77001-00030		MEK		standard universal blue ink, dye-based ink	standard universal ink, dark blue / almost not visible on dark surfaces • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces • darker "blue" than 76000-00101	y		dark,
blue	76000-00114		77001-00030		MEK		"royal blue" ink, standard universal blue ink, dye-based ink	standard universal ink, "royal-blue"/ almost not visible on dark surfaces • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces • darker "blue" than 76000-00101	y		
blue	76000-00115		77001-00146		Ehtanol		Blue egg-shell ink	blue ink for egg shells • EC-conform ink for printing on egg shells (no FDA) • is quite easy water-soluble and therefore the print on non-porous material has to be judged about the "smear-resistance" if in contact with humidity	y		EC, Egg,
blue	76000-00116		77001-00030		MEK		Halogen-free universal ink, dye-based ink	standard universal ink (Halogen-free) / almost not visible on dark surfaces • universal usability on a wide range of materials • quite difficult to identify on black and dark surfaces	y		
blue	76000-00119		77001-00030		MEK		Heavy pigmented PVC-ink in light blue	heavy pigmented light blue ink for PVC. Transfer secure • Special PVC-ink in light blue for wire & cable • Transfer secure • With good contrast on various surfaces like Metal, Paper, Films a.o. • Also good on rubber (vulcanized & formed)		y	PVC,
blue	76000-00121		77001-00030		MEK		PVC-ink, pigmented, transfer secure, light-blue	PVC ink for wire & cable applications. Transfer secure. • Special PVC-ink for wire, cables and other PVC materials • Transfer secure. • Quite bright color. Good on dark surface.		y	PVC,
thermo-chromic	78000-00101		77001-00128		MEK		"thermochromic ink", black to blue, sterilization resistant	thermochromic ink, changes from black to blue after steam sterilization process • typically used in the canned food industry • changes the color during the sterilization process (after 20 min. at 115°C / 240°F hot steam). • the steam is necessary for changing the color; it does not work with dry heat! • If the color change is not sufficient a higher amount of ink can help (e.g. by using the "contrast function" or a 70µ nozzle) • Special application experience: the thermocromic ink "black to blue" printed on steel turns red under 700° Farenheit (370° Celcius) for 30 min and sticks very well.	y		sterilizaton resistant
thermo-chromic	78000-00103		77001-00128		MEK		"thermochromic ink", black to red sterilization resistant	thermochromic ink, changes from black to red after steam sterilization process • typically used in the canned food industry • changes the color during the sterilization process (after 20 min. at 115°C / 240°F hot steam). • the steam is necessary for changing the color; it does not work with dry heat! • If the color change is not sufficient a higher amount of ink can help (e.g. by using the "contrast function" or a 70µ nozzle)	y		sterilizaton resistant

INK LIST FOR DISTRIBUTORS

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
white	79000-00104		77001-00030		MEK	GENERAL PURPOSE	white pigmented ink, high contrast ink	universal ink with very wide range of usability, very good contrast and adhesion • very good standard ink for universal usability on a wide range of materials • very reliable processing • very good contrast • AIRBUS-listed and approved ink • Very good on USIBOR steel. Merges during the process.			
white	79000-00106		77001-00107		Special	MEK free	white pigmented ink, MEK-free	universal ink, MEK-free, good contrast • standard ink (MEK-free) for universal usability on a wide range of materials • less contrast than 79000-00104			
white	79000-00108		77001-00030		MEK	3 PVC	white pigmented ink “transfer-fast” PVC-ink,	very good PVC-ink (vinyl ink), excellent contrast and adhesion, transfer-secure • special ink for PVC • very good adhesion on PVC-cables and tubes (“transfer-fast”) • very good contrast • also often best choice on EPDM / rubber (is sometimes able to survive the vulcanization process)			PVC,
white	79000-00109		77001-00122		Acetone	MEK free	white pigmented ink, MEK-free	MEK-free universal ink • standard ink (MEK-free) for universal usability on a wide range of materials			
white	79000-00114		77001-00157		MEK	Halogen free	white pigmented ink, “halogen-free” ink	universal "halogen-free" ink • standard “halogen-free”- ink for universal usability on a wide range of materials			
white	79000-00115		77001-00030		MEK		UV-curable ink, (will not dry / harden without the UV-light), white pigmented	UV-curable ink • after UV-curing very good resistance against several solvents, cleaners and other aggressive chemicals (like brake fluid, gasoline ….) • UV-curing instructions: after printing the UV curing inks, a few seconds must be allowed for the solvent to evaporate (1-2 seconds, depending on ambient conditions). The print should then be exposed to an undoped mercury UV-lamp (with a wave length spectrum of 200-400nm). The print will require from 1000mJ/cm² to cure completely. Full resistance properties of the print will depend on the power of the lamp. The full resistance properties will occur a few minutes after cure as the curing mechanism continues on after being exposed to the UV light. • ink must be protected from sunlight • needs from time to time special cleaning procedure on the electrodes inside the print head (with a brush and special cleaner 77001-00020) • **LED-lamps / LED-driers are not applicable for this ink type** • Needs special cleaning routine: this ink creates a kind of coating effect inside the charge electrode and have to be washed therefore with special cleaner in regular intervals (with the help of a little brush). The cleaner has the part number 77001-00020. This cleaner must not enter to the ink hydraulic system and has to be washed off with plenty of water, after the cleaning process. !			

INK LIST FOR DISTRIBUTORS

									Pigments		Tags
COLOR	INK		SOLVENT		SOLVENT BASE		CHARACTERISTICS	DESCRIPTION	NPT	PT	KEYWORDS / MATERIAL
white	79000-00117		77001-00158		Acetone		White-pigmented and heat-curable ink, (will not dry / harden without the heat)	heat-curable white pigmented ink (needs ~250°C for ~3sec. to dry/harden) • The heat-curing must take place at at least 250°C (480°F) for round about 3 seconds. • Shows an excellent adhesion after the heat-curing process (e.g. on PA tubes and pipes)			
white	79000-00118		77001-00030		MEK		White pigmented for vulcanization application	Vulcanization resistant white pigmented ink • Special ink for vulcanization applications. • Withstands vulcanizations process on rubber			vulcanization,
white	79000-00119		77001-00030		MEK		Special PE/PP-adhesion ink	PE and PP special ink. Also has a good wetness resistance. • Special ink for PE / PP-material. • Very good adhesion also on metal, nylon, paper a.o. • good resistance against condensate & wetness			PP, PE,
white	79000-00120		77001-00030		MEK		White pigmented for major cable application	Wire & Cable ink for a wide range of materials in this market. Also certain PVC cables. • good characteristic on various wire&cable applications • Also good on various PVC-cables. Each specific material needs to be tested for final confirmation.			PP, PE,
white	79000-00121		77001-00030		MEK		“Automotive fluid” – resistant white pigmented ink.	"Automotive fluid" resistant ink. (special rules apply - see ink list for details) • Special ink for automotive applications • Resistant against automotive fluids • Can survive the exposure to automotive fluids, as e.g antifreeze, motor oil, transmission fluid, diesel fluid but has to be tested for each specific application and material. **Best resistance level will be achieved 72 hours after printing.**			
white	79000-00122		77001-00030		MEK		white pigmented ink, “transfer-secure” PVC-ink,	PVC ink for wire & cable applications. Transfer secure. Also works on some other materials • Special PVC-ink for wire, cables and other PVC-materials. • Transfer secure • Easy handling and good performance			PVC,