

Introduction of IQ8880/IQ797Plus with a review of existing ink



Solvent based Ink Line Up

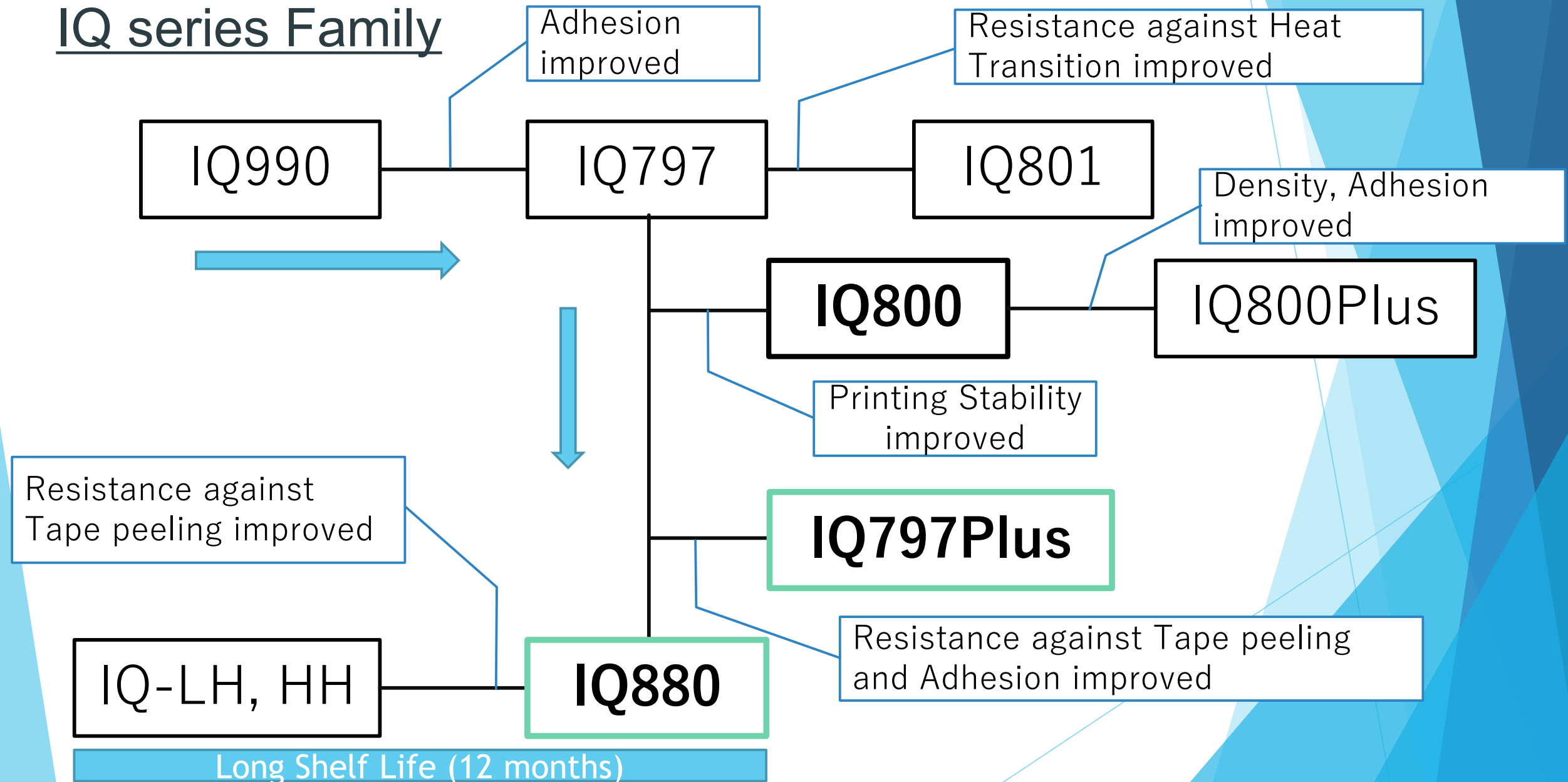
Existing ink and its strength

- IQ990 . . . High Density
- IQ797 . . . High Adhesion
- IQ800 . . . High Versatility, Stability (**Current Mainstream**)
- IQ800 Plus . . . High Density, High Adhesion
- IQ-LH . . . High Adaptability to Low-Middle Humidity, Long Shelf Life
- IQ-HH . . . High Adaptability to Middle-High Humidity, Long Shelf Life

New developing ink

- IQ880 . . . High Versatility aimed at new Mainstream
- IQ797Plus . . . Highest Adhesion for more various media

IQ series Family



Evaluation point

- ▶ Print Density
- ▶ Dry Time
- ▶ Finger Rubbing Resistance
- ▶ Tape Peeling Resistance
- ▶ Comparison result

Condition

X4JET / Weber Marking

300×300dpi, RT(25°C、24%RH)

* The value in this document is only for reference, not guaranteed.

* The final specification of IQ880 and IQ797plus (Developing Ink) could be changed.
Contact our sales for latest information.

Print Density

Low 1 → 4 High

* Corona Treated

Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ990	4	4	4	4
IQ797	4	4	2	3
IQ800	3	3	2	2
IQ800 Plus	3	3	2	2

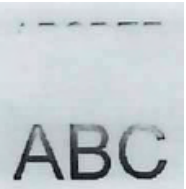
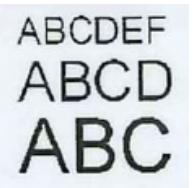
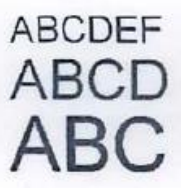
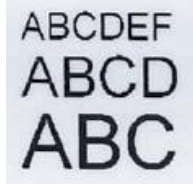
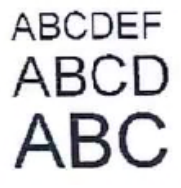
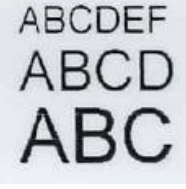
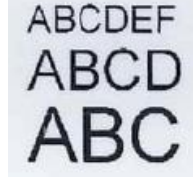
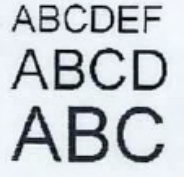
Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ-LH	4	4	3	4
IQ-HH	4	4	2	4
IQ880	4	4	3	4
IQ797 Plus	4	4	3	3

Dry Time

Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ990	4sec	3sec	4sec	2sec
IQ797	4sec	4sec	3sec	3sec
IQ800	3sec	2sec	2sec	2sec
IQ800 Plus	5sec	4sec	3sec	2sec

Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ-LH	5sec	4sec	3sec	3sec
IQ-HH	4sec	3sec	3sec	3sec
IQ880	4sec	3sec	3sec	3sec
IQ797 Plus	4sec	3sec	3sec	2sec

* Corona Treated

	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper		PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ990					IQ-LH				
IQ797					IQ-HH				
IQ800					IQ880				
IQ800 Plus					IQ797 Plus				

⇒ IQ797 ÷ IQ800Plus ÷ IQ-LH ÷ IQ-HH ÷ MH-01 ÷ PE-01 > IQ800 > IQ990

Condition : The print is left under room condition for one hour. One hour later, the print is rubbed for 20 times there and back by finger.

Tape Peeling Resistance

	<u>Cellulose Tape</u>			
Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ990	△	○	○○	○○
IQ797	○	○○	○○	○○
IQ800	○	○○	○○	○○
IQ800 Plus	△	○	○	○○

* Corona Treated

	<u>Cellulose Tape</u>			
Ink	PET Film*	OPP Film*	UV Gloss Paper	Aqueous Gloss Paper
IQ-LH	○	○○	○	○○
IQ-HH	○	○○	○○	○○
IQ880	○○	○○	○○	○○
IQ797 Plus	○○	○○	○○	○○

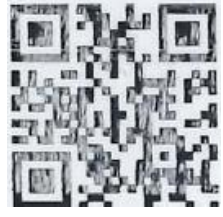
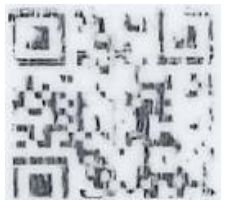
X : Totally erased

△ : Almost erased
(Much lower density)○ : Somewhat erased
(Lower density)

○○ : Almost not erased

Cellulose Tape Peeling Test: Remained Ink on Print vs Transferred Ink on Tape

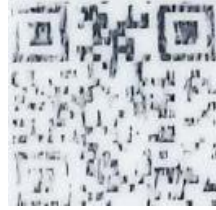
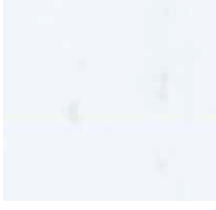
* Corona Treated

Ink	PET Film*		OPP Film*		UV Gloss Paper		Aqueous Gloss Paper	
	Print side	Tape side	Print side	Tape side	Print side	Tape side	Print side	Tape side
IQ990								
IQ797								
IQ800								
IQ800 Plus								

Condition : The print is left under room condition for one hour. One hour later, scotch tape is applied and the print is rubbed by 2kg roller for five times there and back over the tape. After the process, the tape is peeled off from the printed surface.

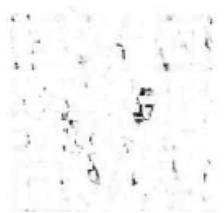
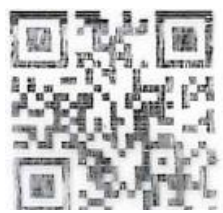
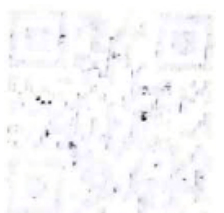
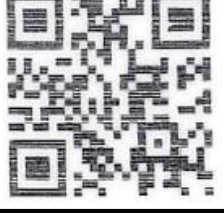
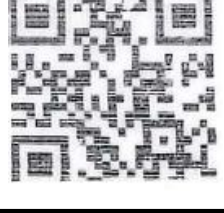
Cellulose Tape Peeling Test: Remained Ink on Print vs Transferred Ink on Tape

* Corona Treated

Ink	PET film*		OPP film*		UV Gloss Paper		Aqueous Gloss Paper	
	Print side	Tape side	Print side	Tape side	Print side	Tape side	Print side	Tape side
IQ-LH								
IQ-HH								
IQ880								
IQ797 Plus								

⇒ Tape Peeling Resistance : IQ797Plus > IQ880 > IQ797 ÷ IQ800 ÷ IQ-LH ÷ IQ-HH > IQ990 > IQ800Plus

Shrink Film (Untreated Polyethylene (PE) Film) Tape Peeling Test : Remained Ink on Print vs Transferred Ink on Tape

Ink	<u>Cellulose Tape</u>		<u>3M/ Scotch Transparent tape</u>		Ink	<u>Cellulose Tape</u>		<u>3M/Scotch transparent tape</u>	
	Print side	Tape side	Print side	Tape side		Print side	Tape side	Print side	Tape side
IQ990					IQ-LH				
IQ797					IQ-HH				
IQ800					IQ880				
IQ800 Plus					IQ797 Plus				

⇒ IQ880 and IQ797Plus have higher resistance against Tape peeling on Untreated PE film¹⁰ compared with others.

Condition : Same as the test with Cellulose tape

- IQ800's result for each evaluation is positioned as ' 3 ' as a standard.
- The other ink's result is numbered from 1 ~ 5 by comparing with IQ800.

Ink	Density (OD value)	Dry Time	Finger Rubbing Resistance	Tape Peeling Resistance	Abrasion Resistance e.g Carton rubbing
IQ990	5	2	1	2	1
IQ797	4	2	5	3	5
IQ800	3	3	3	3	3
IQ800Plus	5	2	5	2	4
IQ-LH	5	2	5	3	3
IQ-HH	5	2	5	3	3
IQ880	5	2	5	5	4
IQ797Plus	5	2	5	5	5

1 : IQ800 is better

2 : IQ800 is slightly better

3 : Same level as IQ800

4 : Slightly better than IQ800

5 : Better than IQ800

(Substrate : PET film)

Shelf Life (months)

IQ990, IQ797	IQ800Plus	IQ800	IQLH, HH
6	8	9	12
→	→	→	→
Longer			

* IQ880, 797Plus = TBA