

使用手册 User Guideline



中國製釉股份有限公司自2004年12月起即投入陶瓷噴墨墨水以及顏料的研發,並取得多項專利。公司用於陶瓷墨水之顏料純度高、發色穩定、色域寬廣,採用超高分散技術生產奈米等級的陶瓷數位墨水,適用於各類形壓電式陶瓷墨水噴頭。

Since the December of 2004, China Glaze Co., Ltd. has devoted to the research and development of ceramic digital ink and pigment, and obtained a number of patents. Our pigment used in ceramic digital ink has a high purity, color stability and wide color gamut, which used to produce Nano ceramic digital ink by extremely high dispersion technology, and used for all kinds of piezo ceramic inkjet printhead.

中國製釉墨水的優勢

Advantages of Cerami-Jet Ink

呈色良好

Excellent color development

黏度穩定

Excellent consistency on viscosity

表面張力穩定

Excellent consistency on surface tension

環保無毒配方

Environmental and Nontoxic formulation

適用於多種噴頭

Adaptable to most popular printhead

噴嘴無阻塞可能性

No risk of clogging nozzles

與水不相溶、無導電性

Insoluble with water, No electrical conductivity

保存時間可達6個月

Shelf life up to six months

Major Color

主要顏色

量產品 Commercial products



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Ceramic-Jet ink 使用手冊

感謝您選用本公司的陶瓷數碼墨水,為了要獲得良好的列印質量以及維護噴頭

的使用壽命,請您耐心的閱讀本手冊,並立即徹底的進行預防性維護保養,本手冊 適用於本公司的所有墨水,本公司的CI系列墨水專為壓電陶瓷噴頭設計,請用於具 有內部循環壓電式陶瓷墨水專用噴頭。

本公的墨水已獲得塞爾(Xaar)與富士軟片(Dimatix)的認證,同時也得到天工法 拉利(Tecnoferrari)、System、INTESA等噴繪機設備廠的認證,其他噴墨機製造商 也在陸續認證中,不會損壞他們的噴墨機供墨系統,它不會造成噴頭的任何損壞敬 請安心使用。

一、墨水的安裝步驟

A.新噴墨機安裝墨水

- 1.安裝墨水前請先洽本公司確認各色墨水的安裝位置,以確保得到最佳的墨水 配置,並且在各排噴頭的明顯位置以明顯標誌標示顏色,避免墨水的誤用。
- 2.將供墨系統中原廠噴墨頭保養液洩除乾淨。
- 3.將**CI-F0011**清洗液約2Kg,裝入一級墨盒之中,啟動供墨循環系統,循環清洗30分鐘後,將清洗液洩除乾淨。
- 4.再次將**CI-F0011**清洗液6Kg注入一級墨盒之中,循環2~4hr後,將所有清洗 液洩除。
- 5.裝填約2.5Kg墨水,啟動供墨循環系統,循環30mins後洩除。
- 6. 裝載墨水到一級墨盒中約8分滿, 啟動供墨循環系統讓墨水在供墨系統中循環並消除墨水中的氣泡, 正常狀況4~8hr後可開始正常列印, 最佳循環脫氣時間為24hr以上。
- 7.載入噴頭相符的波形,調整電壓,溫度,真空度與供墨系統的壓差,使得到 良好的列印質量。
- 8.首次安裝墨水,請聯繫設備製造商與墨水供應商共同參與,請不要自行裝填。

Cerami-Jet InkUser Guideline

Thank you for choosing our Cerami-Jet Ink, in order to get a good print quality and the maintenance life of the nozzle, please be patient to read this guideline and conduct immediately a implementing preventive maintenance; This guideline applies to all of our inks, the CI series of our ink are designed for the piezoprintheads, please use to internal circulation piezoprinthead only.

Our Cerami-Jet Ink not only has obtained the validation of Xaar and FUJUIFILM Dimatix, also gotten the passed certificate of TecnoFerrari, System, INTESA etc, and are also being certified by the other inkjet printer manufacturers; it will not damage the ink supply system of inkjet printer and not cause any damage to the printhead, please rest assured to use.

I. Ink insertion steps

A. A new ink insertion

- Before insert into ink, please contact us to confirm the insertion location of each ink in order to ensure the optimum ink configuration, and mark color with clear sign on the obvious position on each row of printhead to avoid misusing of the ink.
- 2. Totally drain off the protection fluid from the ink supply system.
- 3. Load approx 2 kg of the Flush of **CI-F0011** into ink reservoir, start up the ink supply circulation system and circularly wash for 30 minutes, and then totally drain off Flush.
- 4. Load approx 6 kg of the Flush of **CI-F0011** into ink reservoir again, and drain off Flush after cycle 2 ~ 4 hrs.
- 5. Insert approx 2.5 kg ink, start up the ink supply circulation system and drain off Flush after cycle 30 minutes.
- 6. Insert approx 80% ink into ink reservoir, start up the ink supply circulationsystem, let the ink circulate in the ink supply system and remove the air bubble from ink; under normal conditions, after 4 ~ 8 hrs to start up a normal printing, the optimum degassing time is more than 24 hrs.
- 7. Load the ink parameter to inkjet printer, such as waveform, voltage, temperature, vacuum and the differential pressure of ink supply system to get a good print quality.
- 8. Insert ink for the first time, kindly contact the inkjet printer manufacturer and ink supplier to work together, please do not attempt to insert it by yourself.

B.舊機之墨水更換

1. 清洗液相容性測試,若不互容可能會導致無法挽回的損害,建議做一簡單的相容性測試:將**CI-F0011** 50%與原供應商的清洗液50%混合在一個空的玻璃瓶中(容量約50ml),搖晃均勻後靜置5~10分鐘,然後仔細觀察瓶裡兩種

溶液是否分層或乳化,若產生分層或乳化表示兩者不相容,這時要特別留意在更換墨水時以原墨水供應商提供之清洗液洗淨,直到清洗液呈現不再出現殘留的顏色後,清空一級墨盒與管線殘留之清洗液,更換過濾器後再加入 CI-F0011清洗液。請反覆以CI-F0011清洗液清洗,直到以玻璃瓶裝自噴頭流出的清洗液呈清澈沒有分層或乳化的情形,再依下列第4點繼續操作。

- 2. 請先用原墨水列印噴頭狀態圖於紙張上留存,後將原留在供墨系統中的墨水 洩出,待完全洩出後,以原供應商的清洗液清洗整個供墨系統(含噴頭),循 環時間以及洩出程式請依設備供應商所要求的程式處理。
- 3. 將此清洗液洩出供墨系統,換上**CI-F0011**清洗液,循環時間以及洩出程式 請依設備供應商所要求的程式處理。
- 4. 洩出CI-F0011清洗液,清空一級墨盒以及管線中殘存的清洗液,並更換過 濾器。(此過濾器必需已經過CI-F0011清洗液潤濕過並清空的),後加入CI系 列墨水到一級墨水匣中進行機台供墨系統循環,經過4hrs以上將殘存的清洗 液與墨水混合物排乾淨,以確保清洗液不留存於供墨系統中。
- 5. 將一級墨盒加滿,讓墨水在供墨系統中循環並消除墨水中的氣泡,同時修改 噴頭對應墨水的噴墨參數如:波形,電壓,溫度,真空度與供墨系統的壓 差,使得到良好的列印質量。
- 6. 試噴噴頭公司提供的噴頭狀態圖,並與更換墨水前的狀態圖比較噴頭狀況以確保列印質量。
- 7. 噴色卡測 I C C 開始調色。

注意:使用過的墨水及清洗液請勿再重覆使用,廢棄的墨水及清洗液請勿隨意丟棄,請洽詢具備有機溶劑處理資格的廠商處理。

B. Ink replacement

1. The compatibility test of Flush: If not compatible, it may cause irreparable damage, suggest to do a simple compatibility test; to mix 50% CI-F0011 with 50% Flush of the original supplier in an empty glass bottles (volume: about 50ml), and stand for 5 to 10 minutes after evenly shaking, then observe carefully whether these two solutions inside bottle will be

demixing or emulsified; If demixing or emulsified, this means that they are incompatible. While replacing the inks, it should pay special attention to use original supplier's Flush to wash it until Flush will no longer present residual color, drain off & clean ink reservoir and the residual Flush of pipelines, and then add CI-F0011 after replaced filters program. Please wash repeatedly by CI-F0011 until the Flush of printhead came from glass bottles is clean and not demixing or emulsified, and then continue to the point 4:

- 2. Please use the original ink to print printhead status figure on the paper and keep in, then drain off the inks left in the original ink supply system; then wash whole ink supply system (including printhead) by original supplier's Flush after inks completely drained off, please handle it according to printer supplier's ink replacement procedure.
- 3. Drain this Flush off ink supply system and replace **CI-F0011**, please handle it according to the requiring program of equipment supplier for the cycle time and the drain program.
- 4. Drain off **CI-F0011** from ink reservoir and the residual flush of pipelines and replace the filter (This filter must have been wetted and purged with **CI-F0011**), and then add the CI series ink to ink reservoir for the circulation of ink supply system the machine; After 4hrs over, drain off residual Flush and inks mixtures to ensure that the Flush will not be kept in the ink supply system.
- 5. Fill in ink reservoir to let ink circulate in the ink supply system and eliminate the air bubbles from ink, also modify the jet parameters of printhead corresponding to ink, such as waveform, voltage, temperature, vacuum and differential pressure of ink supply system in order to get a good print quality.
- 6. In order to maintain print quality, try to jet the printhead status figure provided by printhead producer, and compare its printhead situation of the status figure before ink replacing.
- 7. Jet color chart and test ICC to adjust colors.
- *. Note: Please do not reuse the used ink and Flush, and do not randomly discard the waste ink and Flush, kindly please contact the qualified firm of organic solvent treatment to handle them.

二、設備在墨水正常使用下的維護

本公司所有墨水都經過1微米的過濾,所以正常狀況下應該24小時不停的使用,可以保持最佳狀況,僅需依設備商要求定期清潔噴頭以及更換過濾器即可,但往往因為各種原因導致不能持續生產,或一天僅操作數小時的情況下,或停止運行更長的時間,就要特別留意日常的維護,防止噴頭堵塞並使列印質量維持在一定的水準。

*每天運行數小時進行的保養

- 1. 先用紙張列印個別顏色的噴頭狀態圖,並在紙上標明日期、時間並留存此狀態圖,隨後以壓力清空方式讓噴頭噴10~20秒,再以真空抽力將噴嘴上多餘的墨滴吸走,若吸不乾淨的話用已經被清洗液濕潤不起毛屑的無塵布或棉纖,依噴嘴排列的方向單向擦拭,請注意絕對不要使用用過的布或棉纖擦拭,也不要用乾的布擦拭,更不能用易起毛屑的毛巾衣物擦拭,這樣做會傷害噴頭。壓力清空的目的是將噴頭內所有的舊墨水推出更新,來防止沉澱堆積。另對因停機時防止滲墨而提高負壓值時,會造成噴頭內留存空氣而造成列印不完全或列印偏離的現象,壓力清空方式可將空氣排出。
- 2. 壓力清空完成後再一次噴各別顏色的噴頭狀態圖,比較前後的差異,一般而言均可獲得改善,若未改善可反覆再次做壓力清空,如果列印不完全的面積變大,則可能需要拆下噴頭清洗,拆洗噴頭請連繫設備商,並依清洗程式操作。清洗後將噴頭裝上並再做壓力清空讓墨水以及空氣自噴頭噴出,完成後再噴噴頭狀態圖,以檢查噴頭是否已恢復正常狀態,將最後完成的噴頭狀態圖標明日期、時間並留存作為將來比較噴頭的狀態。
- 3. 停機時請仍然保持供墨系統的循環狀態,月彎面真空度的負壓應略為降低, 讓墨頭有少許滲墨現象,同時在停機時噴頭應該要有保護蓋保護,這樣可以 防止噴頭乾燥而產生墨水固化現象,負壓過大會導致空氣自噴嘴吸入到墨水 通道而使墨水濃度變大而逐漸堵塞噴頭。

II. Maintenance under normal use of ink

All of our Cerami-Jet ink have been passed a micron filtration, they should be nonstop used in 24 hours under normal circumstances and can be kept the best condition, just require regularly to clean printhead and replace filter according to the regulation of equipment supplier. However, suppose they are not able to produce continuously due to various reasons or to operate only a few hours per day or to stop running in a longer time, you should pay special attention to routine maintenance in order to prevent printhead clogging to maintain print quality at a certain level.

* Maintenance for running several hours per day

- 1. Print the printhead status figure of individual color first, indicate date and time on the paper and keep this graph, then let printhead jet 10 to 20 seconds with pressure purge way, and then suck away excess ink droplet of nozzle with vacuum force; If not suck clean, wipe the nozzle unidirectional along nozzle array direction with the wetted lint-free cloth or swab. Please note that never use the used cloth or swab to wipe, nor use a dry cloth, this would damage the nozzle. The purpose of pressure purge is to clean off contamination, clear off air and remove contamination from the nozzle plate. Also due to shutdown, when increase negative pressure values in order to prevent ink dripping, this will cause the air retained inside of printhead and cause missing jets or deviating jets, the air can be discharged with pressure purge way.
- 2. After finished pressure purge, jet again the printhead status figure of individual color to compare the differences before and after, generally it can be improved. If not, make repeatedly the pressure purge again. If the missing jets become larger, you may need to remove the printhead to clean it. Please contact equipment supplier for removable and washable printhead, and operate it according to cleaning program. After cleaning, install printhead and make again pressure purge to let the ink and air eject from printhead. After completed, jet again printhead status figure to check whether the printhead has returned to normal status, and indicate date, time of the final completed printhead status figure, and keep it for comparing printhead status in the future.
- 3. Please remain the circulation status of ink supply system, and the negative pressure of meniscus vacuum should be slightly lower to let printhead have a little ink leaks phenomenon; It should have protective cover to protect printhead while in shutdown, which can prevent printhead drying and cause solidification phenomenon. Excessive negative pressure will let air from nozzle sucked into inks channel to let ink density becomes larger and gradually clogged printhead.

*停止運行時間超過7天以上的保養

- 1. 每天至少進行**2**次模擬噴印作業,每次至少**10-15**分鐘,每次均需列印噴頭 狀態圖,以確定噴頭狀況。
- 2. 必須加裝噴頭保護蓋,以防止噴頭乾燥。
- 3. 降低月彎面真空度保持噴頭的潤濕,以保護噴頭。
- 4. 供墨循環系統應隨時保持運轉狀態,以確保墨水維持在最佳狀態。

*停止運行時間超過一個月的保養

- 1. 將所有墨水自列印機上洩出並以清洗液將噴頭以及管路中的墨水清除乾淨。
- 2. 更新所有過濾器。
- 3. 重新灌入噴頭保養液**CI-F0011**,開啟供墨系統循環作業,確保噴頭潤溼狀

態。

4. 下次生產時依照墨水的安裝步驟A, 重新注入新墨水

三、使用參數建議

12 47 14				
編號	色澤	比重	工作黏度 (centipoise)	備註
CI-P2023	藍色	1.1~1.3	16.0~11.0	適合地磚
CI-P2211	藍色	1.1~1.3	15.0~11.0	適合牆磚
CI-P4021	黄色	1.2~1.4	21.0~11.0	
CI-P5022	粉紅色	1.2~1.4	17.0~11.0	
CI-P6012	比其色	1.2~1.4	17.0~11.0	
CI-P7023	棕色	1.2~1.4	16.0~11.0	
CI-P7031	深棕色	1.2~1.4	16.0~11.0	
CI-P9021	黑色	1.2~1.4	17.0~11.0	
CI-P9221	棕黑色	1.2~1.4	17.0~11.0	
CI-W1001	白色/3D浮雕效果	1.2~1.4	16.0~11.0	
CI-W4011	白色	1.2~1.4	16.0~11.0	
CI-R2102	下陷窯變效果	1.1~1.3	18.0~11.0	
CI-N1012	負離子	1.0~1.2	19.0~11.0	
CI-L3011	閃光效果	1.1~1.3	19.0~11.0	適合牆磚
CI-G1011	透明亮效果	1.0~1.2	15.0~11.0	
CI-R8011	3D浮雕效果	1.0~1.2	19.0~11.0	
CI-R8211	3D浮雕效果	1.2~1.4	19.0~11.0	
CI-F0011	清洗液	0.8~0.9		

由於不同噴頭有不同的電壓、波形,所以在此不特別強調,如有需要請個別聯繫本公司營業人員。

四、運輸與儲存

- 1. 運送時,溫度控制請勿超過40℃。
- 請儲存於設有空調之儲存空間內,避免陽光照射,保存最適溫度為5℃~25℃之間。
- 3. 本公司所產出的墨水有效期限為:自生產日期起算6個月止。

* Maintenance for stop running more than seven days

- 1. At least twice a day for the simulation of jetting and at least 10-15minutes each time. It is required to print printhead status figure each time in order to identify printhead status.
- 2. It must be installed protective cover cap to prevent printhead drying.
- 3. Reduce meniscus vacuum and keep printhead wetting to protect printhead.
- 4. Keep ink supply system in the running status to ensure that the ink always is in optimum condition.

*Maintenance for stop running more than one month

- 1. Drain off all inks from inkjet printer, and clean off all inks inside of printhead and pipeline with Flush.
- 2. Replace all filters.

- 3. Reload printhead maintenance fluid **CI-F0011**, startup the cycle operation of ink supply system to ensure printhead in wetting status.
- 4. Reload the new ink before next production according to the A of Ink insertion steps.

III. Recommend the using parameters

	Palaii		
Color/Effect	Density	Working Viscosity(cp)	Remark
Blue	1.1~1.3	16.0~11.0	Suitable for floor tile
Blue	1.1~1.3	15.0~11.0	Suitable for wall tile
Yellow	1.2~1.4	21.0~11.0	
Pink	1.2~1.4	17.0~11.0	
Beige	1.2~1.4	17.0~11.0	
Brown	1.2~1.4	16.0~11.0	
Dark Brown	1.2~1.4	16.0~11.0	
Black	1.2~1.4	17.0~11.0	
Brownish Black	1.2~1.4	17.0~11.0	
White/3D Relief	1.2~1.4	16.0~11.0	
Super White	1.2~1.4	16.0~11.0	
Reactive Effect	1.1~1.3	18.0~11.0	
Negative Ion	1.0~1.2	19.0~11.0	
Luster Effect	1.1~1.3	19.0~11.0	Suitable for wall tile
Glossy Transparen/3D Relief	1.0~1.2	15.0~11.0	
3D Relief Effect	1.0~1.2	19.0~11.0	
3D Relief Effect	1.2~1.4	19.0~11.0	
Cleaner	0.8~0.9	_	
	Blue Blue Yellow Pink Beige Brown Dark Brown Black Brownish Black White/3D Relief Super White Reactive Effect Negative Ion Luster Effect Glossy Transparen/3D Relief 3D Relief Effect	Color/Effect Density Blue 1.1~1.3 Yellow 1.2~1.4 Pink 1.2~1.4 Beige 1.2~1.4 Brown 1.2~1.4 Dark Brown 1.2~1.4 Black 1.2~1.4 Brownish Black 1.2~1.4 White/3D Relief 1.2~1.4 Super White 1.2~1.4 Reactive Effect 1.1~1.3 Negative Ion 1.0~1.2 Luster Effect 1.1~1.3 Glossy Transparen/3D Relief 1.0~1.2 3D Relief Effect 1.0~1.2 3D Relief Effect 1.2~1.4	Color/Effect Density Working Viscosity(cp) Blue 1.1~1.3 16.0~11.0 Blue 1.1~1.3 15.0~11.0 Yellow 1.2~1.4 21.0~11.0 Pink 1.2~1.4 17.0~11.0 Beige 1.2~1.4 16.0~11.0 Brown 1.2~1.4 16.0~11.0 Black 1.2~1.4 17.0~11.0 Brownish Black 1.2~1.4 17.0~11.0 White/3D Relief 1.2~1.4 16.0~11.0 Super White 1.2~1.4 16.0~11.0 Reactive Effect 1.1~1.3 18.0~11.0 Negative Ion 1.0~1.2 19.0~11.0 Luster Effect 1.1~1.3 19.0~11.0 Glossy Transparen/3D Relief 1.0~1.2 15.0~11.0 3D Relief Effect 1.0~1.2 19.0~11.0 3D Relief Effect 1.2~1.4 19.0~11.0

Because of different printheads have different voltage and waveform, they are not particularly stressed in the above. If necessary, please contact our sales engineer individually.

IV. Transport and storage

- 1. Temperature control should not exceed 40°C during transport.
- 2. Please save our Cerami-Jet ink in a storage space of indoor air conditioning in order to avoid direct sunlight, and the optimum temperature is between 5° C and 25° C.
- 3. The shelf-life of our Cerami-Jet ink is six months from the date of production.

五、相關注意事項

- 1. 使用前請檢查墨水編號及墨水桶身之製造日期,嚴禁使用過期墨水。
- 2. 開啟前請檢查封口的完整性及外觀的清潔。若發現不完整的封口,請勿開啟, 直接退回本公司。若為髒汙外觀,請先將其擦拭乾淨後再行開啟使用;因瓶蓋 封口不完整及外觀髒汙未依上述方式處理即行開啟使用,本公司將無法瞭解是 否被污染而將無法對產品品質做保證。
- 3. 墨水請務必搖勻後再使用,添加墨水前墨水桶要在搖墨機上搖動1小時,放置 10-20分鐘進行消泡。只有充分搖動後墨水才能混合均勻並保持色調一致。一 旦開啟墨水桶後,先導出一半墨水到噴墨機一級墨盒中,然後傾斜墨水桶直到 能看見桶底;可以用光源在桶底照射觀察桶底是否有沉澱物,如果桶底有沉

- 澱,就將蓋子蓋好並重新搖動直到桶底乾淨為止,最後將剩餘墨水全數導入一級墨水匣中;墨桶若有剩餘墨水未倒完,請將蓋子蓋緊以防止空氣及灰塵進入桶中並儘速將剩餘墨水用完。
- **4.** 本公司產品之粒徑達**1** μ **m**以下,建議在操作時請配戴護目鏡及抗化學藥劑手套,儘可能避免人體直接接觸。
- 5. 一旦進入眼睛,請以大量清水或生理食鹽水沖洗。
- 6. 不可吞食。
- 7. 請保持列印機台作業場所之環境清潔,以確保列印質量。
- 8. 進入噴墨機房磚坯溫度以不超過50℃為原則,如能不超過40℃更為理想。
- 9. 每兩小時自動清冼一次噴頭,請依照設備商提供的噴頭保養手冊執行。
- **10**. 手動清洗墨頭時必須帶防靜電手套,嚴格禁止空手操作。擦拭時需用專用清潔 無塵布沾溼清洗液,單向使用乾淨部位一次擦拭清洗,嚴禁來回擦拭。
- 11. 停機不連續生產時,每個噴頭每班必須模擬噴印100%灰度圖100次。
- 12. 每天至少列印一套噴頭狀態圖並記錄參數。
- 13. 加入墨水後,如一個月內未使用完畢,必須排空墨水並更換全新墨水。
- 14. 連續列印時請保持一級墨盒液位在一定高度以上,確保顏色之穩定性。
- **15**. 若墨水使用超過**2**(含)家供應商以上,清洗液及墨水絕對不能混用,需特別小心。
- 16. 每次添加墨水時,應清楚記錄添加時間、顏色、墨水批號與使用期限等資料。
- 17. 噴墨機房最佳溫濕度請保持在20-25℃,室內空氣濕度控制在30%-70%,同時務必保持機房內之整齊清潔避免揚塵。
- **18.**室內地面清潔每班要用沾濕擰乾之拖把清洗,清理機台外部時要用擰乾的濕毛巾擦機器外表,但絕不可用水擦拭噴頭。禁用掃把掃地和吹風,避免揚起灰塵堵寒噴頭。
- **19.** 噴墨機上清洗噴頭的各色托盤要保持乾淨,吸真空的清潔頭上塑膠帽不能沾有 墨水;隨時注意清潔是否確實,是否有吸力不足情況。
- 20. 保持輸送皮帶清潔,切忌揚塵。

V. Related to Instructions

- 1. Before use, please check the ink code number and the manufacture date on ink barrel, and do not use the expired ink.
- Before open, please check the integrity of sealing and clean appearance. If it is found incomplete sealing, do not open it and directly return to us. In case of dirty appearance, please wipe it before open to use; We will not be able to know whether they are contaminated and not able to guarantee to product quality due to incomplete seal of bottle cap and dirty appearance.
- 3. Always shake well before using ink, shake ink barrel, on the rocking machine for 1 hour before add ink, and place 10-20 minutes for defoaming. This can mix evenly and keep color consistency only after fully swing ink. Once you open ink barrel, pour first a half of ink into ink reservoir, then slant ink barrel, until you can see its bottom; you can use light to irradiate barrel bottom and observe if there is any sediment in the bottom, If there have sediment in the bottom, please cover barrel cap and shake again until sediment disappeared, then fully pour the remaining ink into ink reservoir; If there still have the remaining ink inside of ink

- barrel,, please keep barrel cap tightly close to prevent air and dust entering barrel, and use up the remaining ink as soon as possible.
- 4. The average particle size of our Cerami-Jet Ink is less than 1 μ m, it is recommended to wear anti-chemical gloves and safety goggles to minimize human contact during handling.
- 5. Once ran into your eyes, please wash away with plenty of water or physiological saline.
- 6. Do not swallow.
- 7. Please keep inkjet printer have a clean environment in the workplace to ensure print quality
- 8. Basically tile body temperature does not exceed 50° C, it is even better not exceed 40° C
- 9. Please clean printhead automatically once every two hours, carry it out according to the printhead maintenance manual provided by equipment supplier.
- 10. Always wear anti-static gloves during manually clean printhead, bare handed operation is strictly prohibited. Please use a special and clean lint-free cloth wetted by Flush during wipe, wipe and wash unidirectionally with a clean part one time, wiping back and forth is strictly prohibited.
- 11. When in non-continuous production during stop running, every printhead must simulate jetting 100% grayscale 100 times in each shift.
- 12. A printhead status figure must be printed every day, and record the parameters. .
- 13. After adding inks, suppose you can not use up inks within one month, must drain away all inks and replace the new one.
- 14. In order to ensure the color stability, please keep the liquid level of ink reservoir over a certain height during continuous printing.
- 15. If the used ink is more than two suppliers, please be especially careful that Flush and ink absolutely can not be mixed.
- 16. When add ink in each time, you should clearly record the adding time, color, ink batch and useful period etc
- 17. Please kept inkjet printer room temperature and humidity between 20 and 25°C, the indoor air humidity between 30% and 70%, always keep the room clean and tidy to avoid dusting.
- 18. Use the wetted and wrung mop to clean indoor floor each shift, when cleaning equipment's external, you must use the wrung and wetted towel to wipe equipment appearance, do not wipe printhead with water. It is prohibited to sweep floor with broom and blow wind to avoid dusting to clog the printhead.
- 19. Please keep the colors tray of printhead in the inkjet printer, the plastic cap of cleaning head of suction vacuum not be stained by ink; Always pay attention to the indeed cleanliness, and the condition of arising insufficient suction.
- 20. Please keep conveyor belt clean to avoid dusting.

