

承 认 书

Approval Sheet

客户 (Customer): /

客户料号 (Cus .P/N): /

华联威料号 (HLW P/N): JK1-157-C217

品名规格 (PronameSpec): 耳机 JACK 沉板 2.0

送样日期 (Delivery Date): 2023/08/10

承认日期 (Acknowledge Date): 2023/08/10

| | | | |
|---|------------------|---------------------------|--------------------|
| Approved No: | | 客 户 Customer | |
| 采 购 部 Purchasing Dept | 品 质 部 QC Dept | 工 程 部 Engineering Dept | 确 认 Approved By |
| | | | |
| 深 圳 市 华 联 威 电 子 科 技 有 限 公 司 SHEN ZHEN SHI HUA LIAN WEI ELECTRONICS TECHNOLOGY CO; LTD. | | | |
| 业 务 部 Sales Dept | 品 管 部 QC Dept | 工 程 部 Engineering Dept | 核 准 Checked By |
| 黄晓芸 | 欠必锋 | 魏红 | 唐竹君 |

地址: 深圳市龙华区观澜街道桂香社区观澜桂花路 307 号

TEL: 0755-28888886 28888866

邮箱: hua@hlwconn.com

[Http://www.hlwconn.com](http://www.hlwconn.com)

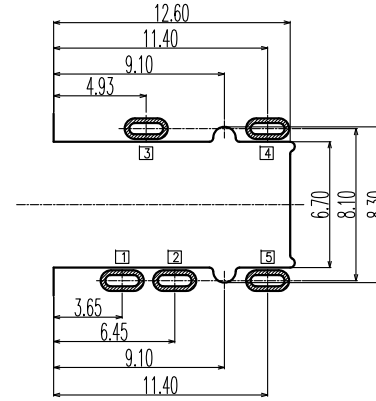
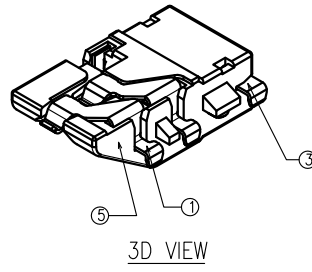
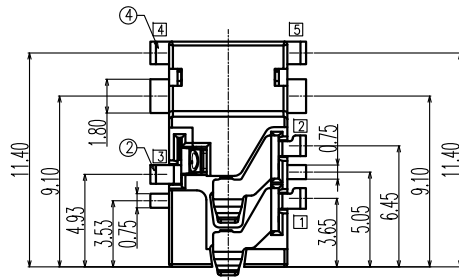


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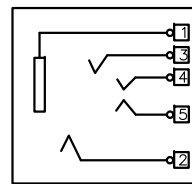
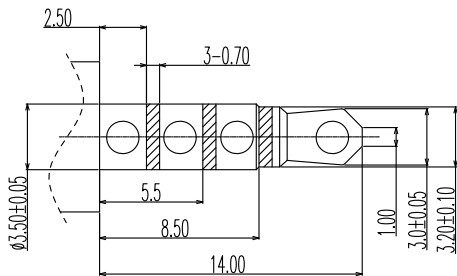
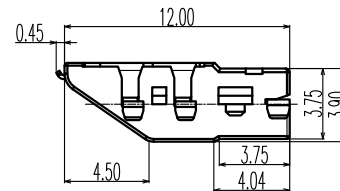
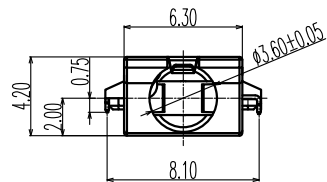
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| | | |
|------|---------|-------|
| REV. | ECN.NO. | APPD. |
| A | / | / |



RECOMMENDED P.C.B LAYOUT
TOP VIEW (TOLRANCE:±0.05)

1. CURRENT RATING : 1.0 AMP. MAX.
2. DIELECTRIC WITHSTANDING : AC 500V/min R. M. S.
3. INSULATION RESISTANCE : 100MΩ min. AT 100V DC.
4. CONTACT RESISTANCE : 50mΩ MAX.
5. OPERATING TEMPERATURE : -25° C TO +85° C.
6. DURABILITY : 1500 CYCLES.
7. MATING FORCE : 3kgs MAX
8. UNMATING FORCE : 0.3~3.0kgs
9. MAX PROCESSING TEMPERATURE :
60 SECONDS IN 230° C AND 10 SECONDS IN 260° C



JK1-157-XXX7
C:半金G/Fu” 1:黑色
2:PBT

| | | | | |
|------|------------|-----|---|------|
| 5 | HOUSING | 1 | HIGH TEMP PLASTIC,COLOR BLACK | |
| 4 | TERMINAL 4 | 1 | PHOSPHOR BRONZE; NICKEL UNDER PLATING OVERALL,GOLD PLATING ON SOLDER AREA;GOLD PLATING ON CONTACT AREA. | |
| 3 | TERMINAL 3 | 1 | PHOSPHOR BRONZE; NICKEL UNDER PLATING OVERALL,GOLD PLATING ON SOLDER AREA;GOLD PLATING ON CONTACT AREA. | |
| 2 | TERMINAL 2 | 1 | PHOSPHOR BRONZE; NICKEL UNDER PLATING OVERALL,GOLD PLATING ON SOLDER AREA;GOLD PLATING ON CONTACT AREA. | |
| 1 | TERMINAL 1 | 2 | PHOSPHOR BRONZE; NICKEL UNDER PLATING OVERALL,GOLD PLATING ON SOLDER AREA;GOLD PLATING ON CONTACT AREA. | |
| ITEM | NAME | QTY | DESCRIPTION | NOTE |

| | | | | | | |
|--------------------------------------|-------------|--|--------------|----------|-------|------|
| TOLERANCE UNLESS OTHERWISE SPECIFIED | | HLW 深圳市华联威电子科技有限公司 HUA LIAN WEI TECHNOLOGY ELECTRONICS CO;LTD. | | | | |
| .XXX ±0.10 | .XX ±0.20 | .X ±0.30 | .X' ±3' | .XX' ±2' | | |
| APPROVED | | PART NAME: | 耳机沉板2.0 | | | |
| CHECKED | | PART No: | JK1-157-C217 | C | | |
| DRAWN | weihong | PROJECTION: | UNIT: | SCALE | SHEET | REV. |
| DATE | 2021. 9. 23 | | mm | 1:1 | 10F1 | A |

JACK系列產品SPEC

| TEST ITEM | | REQUIREMENT | PROCEDURE |
|-------------------------------|---------------------------------|---|---|
| 1 | Examination of Product | Meets requirements of product drawing. No physical damage. | Visual inspection. |
| 2 | Operating Temperature | -25°C to 85 °C | |
| 3 | Storage Temperature | -25°C to 85 °C | |
| ELECTRICAL REQUIREMENT | | | |
| 4 | Rating Voltage | 12VAC max | on any signal pin with respect to the shield |
| 5 | Rating Current | 1.0 A per contact | 55°C ,maximum ambient 85°C ,maximum temperature change (ANSI/EIA 364-70,TP-70) |
| 6 | Contact Resistance | [50] m Ohm Max | Subject mated contacts assembled in housing to 20mV Max open circuit at 100mA Max. EIA-364-23. |
| 7 | Dielectric withstanding Voltage | No flashover ,no creeping discharge, no breakdown | 500 VAC for 1 minute between adjacent terminals. EIA 364-20 |
| 8 | Insulation Resistance | [100] M Ohm Min. | Mated connector with a voltage of 500V DC for 1 minutes between adjacent terminals EIA 364-21 |
| 9 | Temperature Rising | 30°C Max. Under loaded rating current | Contact series-wired, apply test current of loaded rating current to the circuit, and measure the temperature rising by probing on soldered areas of contacts, after the temperature becomes stabilized deduct ambient temperature from the measured value. |
| Mechanical Requirement | | | |
| 10 | Connector Mating Force | <u>3.0 kgf Max</u> | Mating the connector with standard audio plug at a rate of 12.7 mm per minute EIA 364-13 |
| 11 | Connector Unmating Force | <u>0.30~3.0 kgf</u> | Unmating the connector with standard audio plug at a rate of 12.7 mm per minute EIA 364-13 |

| | | | |
|---|----------------------------------|---|--|
| 12 | Durability | Visual Inspection-No physical damage LLCR-50 mΩ max per contact initial,100 mΩ after 1500 insertions. | Insertion and extraction with plug up to 1500 cycles at a maximum rate of 200 cycles per hour. EIA 364-09 |
| 13 | Vibration | No discontinuity at 1 μ s or longer(each contact) when continuity is tested per ANSI/EIA-364-46 | ANSI/EIA-364-28,Condition III,Method 5A,15 minute/axis |
| 14 | Mechanical Shock | No discontinuity at 1 μ s or longer(each contact) when continuity is tested per ANSI/EIA-364-46 | ANSI/EIA-364-27 Condition A(specified pulse) |
| 15 | Solder ability | At least 95% of the immersed area shall be covered with new solder | 1)Temperature of fused solder: 260+5 °C. 2)Dipping time:5+0.5s EIA 364-52 |
| Environmental Requirements | | | |
| 16 | Resistance to Solder Heat | Forming resin shall not be distorted, and terminations shall not be separated. | 1) Depth of dipping termination: the distance between the mounting surface and solder surface shall be 1 mm to 2mm. 2)Temperature:245+5°C . 3) Dipping time:10+1s EIA 364-52 |
| 17 | Thermal Shock | No physical damage to the samples and LLCR-50 mΩ max per contact | Mated connectors exposed to 10 cycles between - 55°C to 85°C, 30 minutes duration at both temperature extremes EIA 364-28 |
| 18 | Steady State Humidity | No physical damage to the samples and can pass the Dielectric Withstanding Voltage & Insulation Resistance | Expose mated connectors to a temperature of 40±2°C with relative humidity of 90-95% for 168 hours Min(seven complete cycles). Remove surface moisture and air dry for 24 hours EIA 364-28 |
| 19 | Temperature Life (Heat Aging) | [100] M Ohm Min. (insulation reisistance) | ANSI/EIA-364-17 Condition 4 105°C for 250 hours,Method A,mated |
| 20 | Salt Spray | Visual Inspection-No physical damageLLCR-50 mΩ max per contact | Mated connector expose to 5% salt concentration for 12 hours at temperature 35+2°C .After the test specimens shall be washed with running water and dried |
| 21 | Colour | Colour Atla | 284C(Blue) 577C(Green) 701C(Red) |
| 22 | Plating | Contact: <u>Cu:40u" ,Sn:40u" ,Ni:40u"</u> Shell: <u>Cu:40u" ,Ni:40u"</u> Ground: <u>Cu:40u" ,Ni:40u" ,Sn:40u"</u> | / |
| Product Qualification and Requalification test | | | |
| Test Group | | | |

| Test or Examination | A | B | C | D | E | F | G | H | I | J |
|-------------------------|------------------------------|------|------|------|------|------|------|------|------|------|
| | Test Sequence (a) | | | | | | | | | |
| Examination of Product | 1, 7 | 1, 9 | 1, 6 | 1, 5 | 1, 5 | 1, 5 | 1, 5 | 1, 3 | 1, 3 | 1, 3 |
| Contact Resistance | | 2, 8 | 2, 5 | 2, 4 | 2, 4 | 2, 4 | 2, 4 | | | |
| Dielectric withstanding | 3, 6 | | | | | | | | | |
| Insulation Resistance | 2, 5 | | | | | | | | | |
| Temperature Rising | | | | | | | | 2 | | |
| Mating Force | | 3, 7 | | | | | | | | |
| Unmating Force | | 4, 6 | | | | | | | | |
| Durability | | 5 | | | | | | | | |
| Vibration | | | 3 | | | | | | | |
| Mechanical Shock | | | 4 | | | | | | | |
| Solderability | | | | | | | | | | 2 |
| Resistance to Soldering | | | | | | | | | 2 | |
| Thermal Shock | | | | 3 | | | | | | |
| Humidity Temperature | 4 | | | | 3 | | | | | |
| Temperature Life | | | | | | 3 | | | | |
| Salt Spray | | | | | | | 3 | | | |
| 備注 | 無客戶指定增加測試項目外，依照此標準進行產品可靠性評估。 | | | | | | | | | |

核准：唐竹君

制作人：魏红

| | | | | | | | | | | | |
|---|-----------------------------|---|---|-----------------------|------|------|------|------|------|---|--|
| 3 | Gold test | Temperature: -25 ±3°C Duration:168H | PROGRAM CONTROLLED TEMP. & HUMIDTY CHAMBER | No physical damage | Pass | Pass | Pass | Pass | Pass | P | |
| 4 | Temperature cycling test | Temperature:85 ~-25°C Duration:5 cycle | PROGRAM CONTROLLED TEMP. & HUMIDTY CHAMBER | No physical damage | Pass | Pass | Pass | Pass | Pass | P | |

四.物理測試 PHYSICAL TEST

| 序 號 NO. | 測試項目 Testing Item | 測試條件 Testing Conditions | 測試設備 Testing Equipment | 規格 SPEC | 測試記錄 Testing Result | | | | | 判定 Judge | |
|---------------|---|---|---|-----------------------|---------------------|------|------|------|------|----------|------|
| | | | | | 1 | 2 | 3 | 4 | 5 | Pass | Fail |
| 1 | Salt spray test | Temperature: 35±2°C Concentration:5±1 %Duration:12H | SALT SPRAY TESTER | No Oxidation | Pass | Pass | Pass | Pass | Pass | P | |
| 2 | Resistance to soldering heat test | Temperature: 260±5°C Duration:10±1sec | OVEN | No physical damage | Pass | Pass | Pass | Pass | Pass | P | |
| 3 | Solder ability test | Temperature: 260±5°C Duration:5±0.5 sec | CONTROLLED CONSTANT-TEMP SOLDER POT | Soldering area ≥95 | Pass | Pass | Pass | Pass | Pass | P | |
| 判定 Result | | <input checked="" type="checkbox"/> 合格 (ACCEPT) <input type="checkbox"/> 不合格 (REJECT) | | | | | | | | | |

核准(Approver): 欠必峰

測試(Tester): 但芬

检验报告

■首件检验 □入库检验 □出货检验 □客退检验 □退料检验 □其他

2023年8月07日 版次:A1

| | | | | | | | | | | | | | |
|--|---------------|-------------|---------|------------|---------|--------|----------|-----------------|----|-----|-----|-----|----|
| 料号 | JK1-157-C217 | 制令单号 | / | 送检单位 | 工程部 | 首件制作者 | 装配 | | | | | | |
| 品名 | 耳机 JACK 沉板2.0 | 客户代号 | / | 批 量 | / | 送检时间 | / | | | | | | |
| | | | | 数 量 | 5PCS | 确认时间 | / | | | | | | |
| 抽样标准 | | ■单次 □双次 | | 抽样数 | AQL | CRI:0 | MAJ:0.40 | MIN:0.65 | | | | | |
| MIL-STD-105E(II) | | ■正常 □加严 □减量 | | (5PCS) | ACC/REJ | 0 | / | / | | | | | |
| 不良数: CRI (/) MAJ (/) MIN (/) | | | | | | 不良率(%) | | / | | | | | |
| NO. | 检验项目 | 检测仪器 | 检 验 记 录 | | | | | 品管判定 | | CRI | MAJ | MIN | 备注 |
| | 单位:MM/G | | 1 | 2 | 3 | 4 | 5 | AC | RE | | | | |
| | 11.40±0.20 | D | 11.43 | 11.45 | 11.41 | 11.42 | 11.43 | √ | | | | | |
| | 9.10±0.20 | D | 9.12 | 9.10 | 9.11 | 9.12 | 9.10 | √ | | | | | |
| | 6.30±0.20 | D | 6.34 | 6.35 | 6.34 | 6.36 | 6.34 | √ | | | | | |
| | 3.60±0.05 | D | 3.64 | 3.65 | 3.63 | 3.64 | 3.65 | √ | | | | | |
| | 8.10±0.20 | D | 8.14 | 8.16 | 8.14 | 8.15 | 8.14 | √ | | | | | |
| | 12.00±0.20 | D | 12.03 | 12.01 | 12.02 | 12.03 | 12.04 | √ | | | | | |
| | 4.50±0.20 | D | 4.56 | 4.52 | 4.53 | 4.54 | 4.55 | √ | | | | | |
| | 3.75±0.20 | D | 3.78 | 3.75 | 3.76 | 3.75 | 3.76 | √ | | | | | |
| | 3.90±0.20 | D | 3.94 | 3.95 | 3.94 | 3.94 | 3.95 | √ | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 检验依据: ■<<工程图纸>> □<<检验规范>> □<<承认书>> □样品 □其它 | | | | | | | | | | | | | |
| 检测仪器:A游标卡尺 B千分尺 C厚薄仪 D投影镜 E放大镜 F显微镜 G锡炉 H插拔力器 I间位尺 J其它 | | | | | | | | | | | | | |
| 品保判定: | | | | | | | | | | | | | |
| 核 准 APP | | 欠必锋 | | 审 核 CHK | | / | | 检 验 员 INSPBY | | 但 芬 | | | |

保存期限:三年

保存部门:品保部

QR-M-003

| | | | | | |
|--------------------------------|----------|---------------|----|-----------|----------|
| 品名:耳机 JACK 沉板2.0 (端子) | | 版次:A.0 | | | |
| 电镀规格:Ni30u", Sn100u", Au G/Fu" | | 日期:2023/05/21 | | | |
| 页次:1/1 | | | | | |
| 厂商:同华 | | | | | |
| 测试设备:CMI X-射线膜厚测试仪 | | | | | |
| 1、底层电镀测试 (Ni) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 30u"MIN | 33.1u" | OK | 2023/5/21 | 10:20:15 |
| 2 | 30u"MIN | 36.3u" | OK | 2023/5/21 | 10:20:17 |
| 3 | 30u"MIN | 36.5u" | OK | 2023/5/21 | 10:20:19 |
| 4 | 30u"MIN | 41.4u" | OK | 2023/5/21 | 10:20:21 |
| 2、表层电镀测试 (Sn) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 100u"MIN | 109.3u" | OK | 2023/5/21 | 10:25:10 |
| 2 | 100u"MIN | 106.7u" | OK | 2023/5/21 | 10:25:12 |
| 3 | 100u"MIN | 105.9u" | OK | 2023/5/21 | 10:25:14 |
| 4 | 100u"MIN | 106.4u" | OK | 2023/5/21 | 10:25:16 |
| 3、表层电镀测试 (Au) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 0.5u"MIN | 0.57u" | OK | 2023/5/21 | 10:30:32 |
| 2 | 0.5u"MIN | 0.54u" | OK | 2023/5/21 | 10:30:34 |
| 3 | 0.5u"MIN | 0.55u" | OK | 2023/5/21 | 10:30:36 |
| 4 | 0.5u"MIN | 0.61u" | OK | 2023/5/21 | 10:30:38 |

核准: 欠必锋

审核: 李娟

检验员: 但芬

电镀报告表

| | | | | | |
|-----------------------|---------|--------------|--------|----------|----------|
| 品名:耳机 JACK 沉板2.0 (外壳) | | 版次:A.0 | | | |
| 电镀规格:Ni:50u"MIN | | 日期:2023/5/06 | 页次:1/1 | | |
| 厂商:金和源 | | | | | |
| 测试设备:CMI X-射线膜厚测试仪 | | | | | |
| 1、表层电镀测试 (Ni) | | | | | |
| 数据 | 测试标准 | 实测值 | 判定 | 测试日期 | 测试时间 |
| 1 | 50u"min | 54.3u" | OK | 2023/5/6 | 14:35:25 |
| 2 | 50u"min | 52.8u" | OK | 2023/5/6 | 14:35:27 |
| 3 | 50u"min | 51.4u" | OK | 2023/5/6 | 14:35:29 |
| 4 | 50u"min | 52.5u" | OK | 2023/5/6 | 14:35:31 |

核准: 欠必锋

审核: 李娟

检验员: 但芬



深圳市华联威电子科技有限公司

盐水喷雾实验报告

| | | | |
|--|----------------------------------|---------|----------------------|
| 试验方法 | 盐水喷雾腐蚀试验法 | 参考资料 | MIL-STD-1345 |
| METHOD | NEUTRL SALT SPRAY CORROSION TEST | REF | |
| 客户 | | 试验起始日期 | 2023年08月07日 08:00 时起 |
| | | DATE | 2023年08月08日 08:00 时止 |
| 样品名称 | 耳机 JACK 沉板2.0 | 试验数量 | 5PCS |
| P/N | JK1-157-C217 | QTY | |
| 试验条件 (TEST CONDDITION) | | | |
| 1、盐水溶解 (SALT SOLUTION: 浓度 $50\pm 10\text{g/L}$, PH值6.5-7.2). | | | |
| 2、试验室温度 (TEMP. IT THE SPRAY DHAMBR): $35\pm 1^\circ\text{C}$. | | | |
| 3、盐水桶温度 (TEMP. OF SALE SOL' N TANK): $35\pm 1^\circ\text{C}$. | | | |
| 4、压力桶温度 (TEMP. OF SAR SUPPLIERY): $47\pm 1^\circ\text{C}$. | | | |
| 5、试验室相对湿度 (R. H IN THE CHAMBER) 85%. | | | |
| 6、压缩空气压力 (COMPRESSED AIR PRESSURE): $1.00\pm 0.01\text{Kg/cm}^2$. | | | |
| 7、样品放置位置 (SPECIMEN SUPPORTED ANGLE): 尼龙绳吊挂 $70^\circ - 90^\circ$. | | | |
| 8、喷雾收集量 (COLLECT RATE OF SALT SOL' N) $1-2\text{mL}/(8\text{ cm}^2\text{hr})$. | | | |
| 9、盐雾测试时间: 24 (H) | | | |
| 判定方法 (ADFUSGD METHOD) | | | |
| 试验后以20倍放大镜观察、无蓝、绿色腐蚀物之现象 (不包含折弯处), 即判定合格. (Inspext the ecimen at 20 xmagnification no blue or green corrosion products are acceptable) | | | |
| 样品序号 | 试验后现象 | 判定 | |
| | PHENOMENON AFTER TEST | COMMENT | |
| 1 | 无蓝、绿色腐蚀物之现象 | OK | |
| 2 | 无蓝、绿色腐蚀物之现象 | OK | |
| 3 | 无蓝、绿色腐蚀物之现象 | OK | |
| 4 | 无蓝、绿色腐蚀物之现象 | OK | |
| 5 | 无蓝、绿色腐蚀物之现象 | OK | |
| | | | |

核准: 欠必锋

审核: 李娟

试验员: 但芬



产品质量证明书

INSPECTION CERTIFICATE

QIAN YI

DONGGUAN QIANYI METAL MATERIAL CO., LTD

客户 CUSTOMER: 华联威

牌号: C2680 R 状态: EH 规格 (mm): 0.18

化学成分 CHEMICAL COMPOSITION% 化学标准 GB/T5231-2001

| 成份 | Cu | Pb | Fe | Zn | 杂质 |
|-----|-----------|---------|---------|-----|-------|
| 标准值 | 63.5-68.0 | max0.03 | max0.10 | rem | |
| 实测值 | 64.36 | 0.0067 | 0.0276 | rem | |

物理性能 PHYSICAL PROPERTY 性能标准 GB/T5231-2001

| 性能 | 抗拉 (Mpa) | 延伸率 (%) | 维氏硬度 (HV) | 厚度公差 (mm) | 宽度公差 (mm) |
|-----|------------------|------------|---------------|-----------|-----------|
| | Tensile strength | Elongation | Hardness Test | Thickness | Width |
| 标准值 | 530-620 | ≥4 | 160-190 | +0 | +0 |
| 实测值 | 558.4 | good | 178.4 | -0.01 | -0.05 |

发货日期: 2023-07-11



材 质 证 明

兹有我司邦奇塑料科技有限公司为贵司所提供的产品不防火增加级原料 PBT 不防火加纤 20%黑色，由以下物质组成：

物品名称：PBT 不防火加纤黑色 20%

| | |
|---------------|--------|
| 组成物质：PBT 环保树脂 | 60-70% |
| 玻纤 | 20-25% |
| 增韧剂 | 7-9% |
| 润滑剂 | 0.1% |
| 抗氧化剂 | 0.1% |
| 偶联剂 | 0.5% |
| 其它 | 0.3% |
| 黑色母 | 1-2% |

建议成型：

1. 烘干温度 120-140℃
2. 烘干时间 2-4 小时
3. 成型温度 240-260℃

特此证明！

东莞市邦奇塑料科技有限公司

