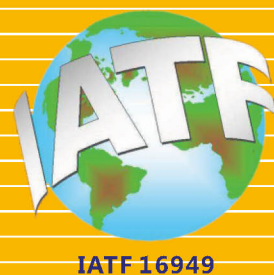




Octopus®  
奧迪博士

玻璃釉料  
GLASS ENAMEL

銀漿  
SILVER PASTE



“奧迪博士” 关怀环保科技与未来

CARING ABOUT ENVIRONMENTAL PROTECTION AND OUR FUTURE

广东奧迪博士实业有限公司  
GUANGDONG OCTOPUS ENTERPRISE CO.,LTD

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## 公司简介

深圳市奥迪博士科技有限公司成立于2007年，拥有在中国以及中国台湾注册的品牌“奥迪博士”（OCTOPUS）系列产品，其中“奥迪博士”釉料系列产品在国内外多家大型玻璃深加工知名企业都得到了肯定和批量使用。广东奥迪博士实业有限公司是深圳市奥迪博士科技有限公司属下的生产型企业，生产基地座落于广东省广州市南沙自贸区，为我司企业自有厂房。离广州南站车程仅25分钟，离深圳或者广州机场60分钟，交通便利。



公司配备了精良的检测仪器及专业技术人员，致力于研发和生产“奥迪博士”（OCTOPUS）高温玻璃釉料与导电银浆系列产品，具有遮盖力强、耐酸碱性能好，低膨胀系数等优良性能。此外，公司还不断致力于开发光电膜材料，低辐射玻璃涂膜材料，太阳能电池导电浆料和特别用途玻璃制品等高科技产品。公司致力于环保理念的推广，环保产品符合欧盟RoHS和REACH环保标准。

公司本着“质量第一、客户至上”的宗旨，开展全面质量管理，通过ISO9001:2015国际质量管理的认证，以规范的作业标准，严格的生产过程控制和先进的原材料与产品检测手段，确保产品出厂合格率达到100%，凭借过硬的产品质量和优质的销售与售后服务管理，得到了客户的普遍好评。

### 我们的产品：

- 汽车玻璃釉料（前档夹层、天窗、侧窗和后挡防粘遮蔽银线钢化玻璃釉料）及导电银浆
- 建筑钢化玻璃用彩色、磨砂、防滑、金属彩晶高温釉料
- 玻璃器皿、锅盖高温釉料
- 家电、家具钢化玻璃釉料及导电银浆
- 耐热冲击、机械冲击钢化玻璃釉料
- 微晶板玻璃釉料、高硼硅玻璃高温釉料
- 太阳能玻璃釉料、触控玻璃釉料
- 低温玻璃油墨、镜面油墨
- 水性系列、UV系列高温玻璃釉料
- 数码钢化玻璃墨水
- 钢化玻璃隔热、防辐射透明高温釉料
- 防伪彩釉、夜光彩釉、反光彩釉
- 钢化玻璃发热板、发热浆料及太阳能电池电极浆料

## Company Introduction

Shenzhen Octopus Technology Co., Ltd was established in 2007. Our brand “OCTOPUS” is registered both in China mainland and Taiwan. Especially the Octopus glass enamel series is well known all over the industries. Guangdong Octopus Enterprise Co.,Ltd is a manufacturer belong to Shenzhen Octopus Technology Co.,Ltd. Factory located in the Nansha Free Trade Area, Guangzhou. It is only 25 min's driving from the Guangzhou South Railway Station, 60 min's from Shenzhen or Guangzhou international airport, the transportation is very convenient.



By advancing apparatus and trained personal, we are reseraching and producing the brand “OCTOPUS” glass enamel and silver paste. All products carry a high opaque, acid resistance and

rich color choice. We are also devoting to the thermal insulation and solar-radiation reduction paste, paste for heating coils function , silicon solar cell conductor AL and AG paste. Octopus care about the environmental protection and our future. Our products meet the EU's RoHS and REACH standards.

“Quality first, Customers first” is our motto. And we have got the ISO9001: 2015 QMS certification. All process of our production line is normalized and controllable. The outgoing quality rate of our products should be 100% to guarantee the best quality. Our high quality of products and service bring us the trust and faith of our customers.

### Our products:

- Enamel for automotive glass (applied to car windshield laminated glass, sunroof and side window tempered glass, rear window tempered glass which meet anti-sicking and hide silver paste) and silver paste.
- Enamel for color, frosting, skid proof and metallic architectural glass.
- Enamel for tempered glassware and pot cover.
- Enamel for appliance and furniture tempered glass and conductive silver paste.
- Enamel for heat-resistant and mechanical impact resistant tempered glass.
- Enamel for microcrystal plate glass and high borosilicate glass.
- Enamel for Solar PV glass, Touch panel glass.
- Ink for low temperature glass and mirror glass.
- Water-friendly and UV medium system color series enamel for tempered glass.
- Digital ceramic ink for tempered glass.
- Transparent, heat-insulation and radiation protection dielectric pastes for tempered glass.
- Color enamel for anti-counterfeiting glass, luminous glass and reflect light glass.
- Heating plate of tempered glass, heating pastes and electrode paste of solar cell.



## ■ 汽车前挡压制釉料

适用于前挡热弯及压制成型夹层玻璃，  
具有遮蔽性和高耐酸性能



产品参数：

颜色：黑色

固含量：78±3%

浆料细度：≤10μm

膨胀系数：<math>85 \times 10^{-7}/^{\circ}\text{C}</math>

粘度：400±100dPa.s/25±3℃

(RION粘度计VT-04F)

丝印条件：200-250目

丝印温度/湿度：25±2℃/50±10%

丝印厚度：20-25μm

干燥条件：150℃/3-5分钟

压制条件：580℃-680℃/8-3分钟

储存期：12个月（常温）



## Press bending laminated enamel

It applies to the auto windshield laminated glass .  
After press bending, it carries a high opaque and  
high acid resistance performance.

Product parameters:

Color: Black

Solid content: 78±3%

Paste particle size : ≤10μm

Expansion coefficient : <math>85 \times 10^{-7}/^{\circ}\text{C}</math>

Viscosity : 400±100dPa.s/25±3℃

(RION viscometer VT-04F )

Silk screen printing : 200-250 mesh

Screen printing temperature/humidity :

25±2℃/50±10%

Thickness of screen printing : 20-25μm

Drying : 150℃/3-5 mins

Press bending : 580℃-680℃/8-3 mins

Storage : 12 months ( Room temperature )



### ■ 汽车侧窗、天窗、后挡钢化玻璃釉料



适用于汽车侧窗、落球要求的天窗和具有防粘性能以及遮蔽防雾线银浆性能的后挡钢化玻璃。

产品参数：

颜色：黑色

固含量：78±3%

浆料细度：≤15μm

膨胀系数：<math>85 \times 10^{-7}/^{\circ}\text{C}</math>

粘度：400±100dPa.s/25±3℃

(RION粘度计VT-04F)

丝印条件：200-250目

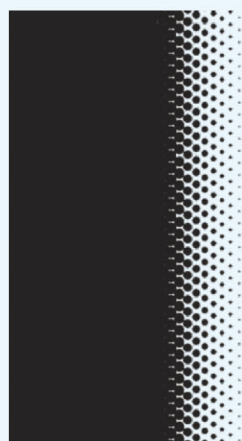
丝印温度/湿度：25±2℃/50±10%

丝印厚度：20-25μm

干燥条件：150℃/3-5分钟

钢化条件：640℃-720℃/8-3分钟

储存期：12个月（常温）



### Enamel for side window, sunroof and rear window glass



It applies to auto side window glass and sunroof tempered glass, which meets the ball drop test requirement. It also applies to rear window tempered glass that has the anti-sticking and silver-hiding performance.

Product parameters:

Color: Black

Solid content: 78±3%

Paste particle size : ≤15μm

Expansion coefficient : <math>85 \times 10^{-7}/^{\circ}\text{C}</math>

Viscosity : 400±100dPa.s/25±3℃

(RION viscometer VT-04F)

Silk screen printing : 200-250 mesh

Screen printing temperature/humidity :  
25±2℃/50±10%

Thickness of screen printing : 20-25μm

Drying : 150℃/3-5 mins

Tempered : 640℃-720℃/8-3 mins

Storage : 12 months ( Room temperature )



## ■ 导电银浆



银浆适用于制备轿车化霜导电银线，烧结后附着力强，经钢化后制成电热化霜玻璃

产品参数：

银含量：60-85%

浆料细度：≤7.5μm

粘度：400±100dPa.s/25±3℃

丝印条件：200-250目

干燥条件：150℃/5分钟

烧结条件：

580℃-620℃/8-3分钟（夹层）

650℃-730℃/8-3分钟（钢化）

方阻：≤3mΩ/□ @15μm

（另外我司可调2.5m-10mΩ/□ @15μm）

焊接拉力：≥80N@80%银含量

颜色：红棕色（锡面）

储存期：9个月（常温）

## Silver paste



Applied on window de-frosting in automobiles.  
Strong adhesion after sintering.

Product parameters:

Silver content: 60-85%

Particle size: ≤7.5μm

Viscosity: 400±100dPa.s/25±3℃

Silk Screen Printing: 200-250 mesh

Drying: 150℃/5 mins

Sintering/Firing:

580℃-620℃/8-3分钟（Laminated）

650℃-730℃/8-3分钟（Tempered）

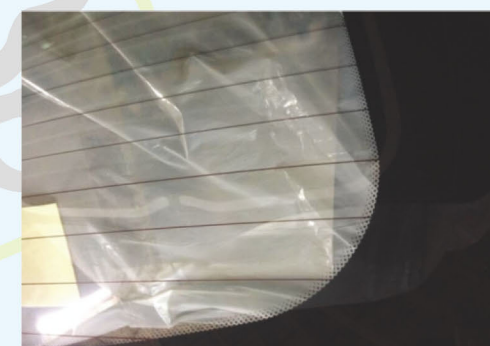
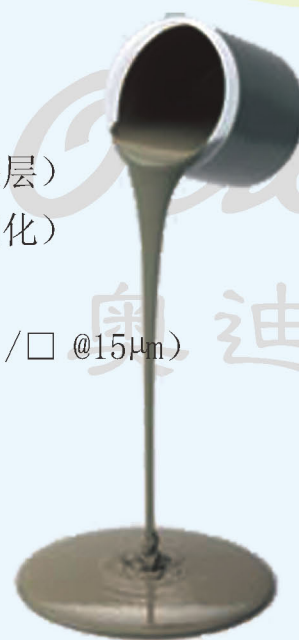
Resistance per square: ≤3mΩ/□ @15μm

（or 2.5-10mΩ/□ @15μm, adjustable）

Welding tension: ≥80N@80% Silver Content

Color: Red-brown (tin side)

Storage: 9 months (Room temperature)



## 产品目录 (汽车玻璃釉料)

分类	产品名称	型号	特性
前挡夹层	玻璃釉料(轿车)	YD-WA1	环保/油性亮光
	玻璃釉料(轿车)	YD-WA2	环保/油性/亮光/OEM配套
	玻璃釉料(轿车)	YD-WA272	环保/油性/哑光/耐酸72小时
	玻璃釉料(轿车)	YD-WA2203	环保/油性/哑光/遮蔽银线
	玻璃釉料(轿车)	YD-WM120	环保/油性/哑光/第二面防粘
	玻璃釉料(轿车)	YD-WA607	环保/油性/用光/压制防粘
	玻璃釉料(大巴)	YD-WA3	环保/油性/亮光/高耐酸
	玻璃釉料(轿车/UV系列)	YD-UVWA1	环保/UV系列/亮光
侧窗钢化	玻璃釉料	YD-WB106M	环保/油性/哑光/耐刮/防粘/耐酸72小时
	玻璃釉料	YD-WB003	环保/油性/亮光/耐刮
天窗钢化	玻璃釉料	YD-WB16	环保/油性/哑光/符合ANZI/ECE落球标准
	玻璃釉料(UV系列)	YD-UVWB16	环保/UV系列/哑光/符合ANZI/ECE落球标准
后挡钢化	玻璃釉料	YD-WC004	环保/油性/高耐酸/遮蔽银线
	玻璃釉料	YD-WC305	环保/油性/哑光/耐酸72小时/遮蔽银线
	玻璃釉料	YD-WC308	环保/油性/哑光/耐酸72小时/遮蔽银线
	玻璃釉料(UV系列)	YD-UVWC305	环保/UV系列/哑光/耐酸72小时/遮蔽银线
导电银浆	导电银浆	YDSS065	环保/65%含银量
	导电银浆	YDSS080	环保/80%含银量
稀释剂	稀释剂	002A/002D	油性
	稀释剂	S002	水性
	稀释剂(UV系列)	YD-UV01	UV系列

注：产品目录持续更新中

## Products Catalog(Automotive)

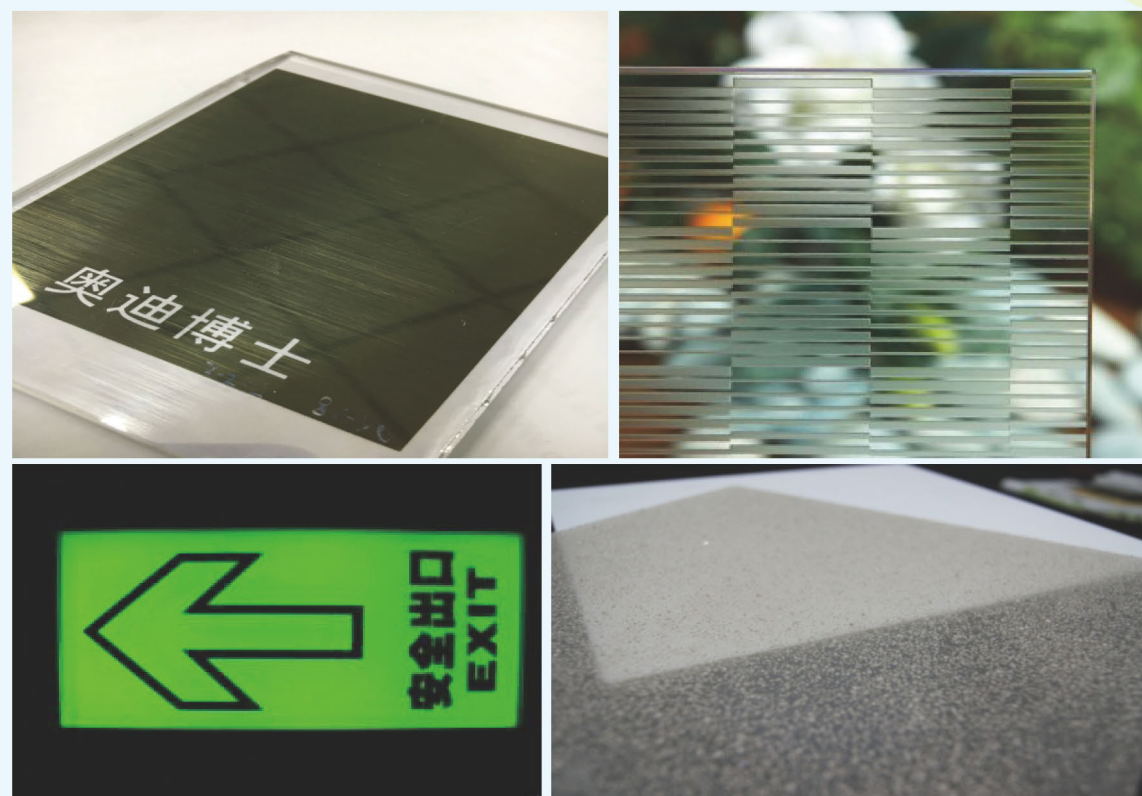
Classify	Name of Products	Model	Characteristic
Windshield laminated	Glass Enamel(for car)	YD-WA1	Lead-free/Oil-based/Gloss
	Glass Enamel(for car)	YD-WA2	Lead-free/Oil-based/Glossy/OEM
	Glass Enamel(for car)	YD-WA272	Lead-free/Oil-based/Matt/72H acid resistance
	Glass Enamel(for car)	YD-WA2203	Lead-free/Oil-based/Matt/Silver-hiding
	Glass Enamel(for car)	YD-WM120	Lead-free/Oil-based/Matt/Anti-sticking for S2
	Glass Enamel(for car)	YD-WA607	Lead-free/Oil-based/Matt/Anti-sticking for pressure forming
	Glass Enamel(for bus)	YD-WA3	Lead-free/Oil-based/Glossy/High acid resistance
	Glass Enamel(UV)	YD-UVWA1	Lead-free/UV series/Glossy
Side Tempered	Glass Enamel	YD-WB106M	Lead-free/Oil-based/Matt/Anti-scratch/Non-stick/72H acid res.
	Glass Enamel	YD-WB003	Lead-free/Oil-based/Glossy/Anti-scratch
Sunroof Tempered	Glass Enamel	YD-WB16	Lead-free/Oil-based/Matt/Match ANZI/ECE specification
	Glass Enamel(UV)	YD-UVWB16	Lead-free/UV series/Matt/Match ANZI/ECE specification
Backlite Tempered	Glass Enamel	YD-WC004	Lead-free/Oil-based/High acid resistance/Silver-hiding
	Glass Enamel	YD-WC305	Lead-free/Oil-based/Matt/72H acid resistance/Silver-hiding
	Glass Enamel	YD-WC308	Lead-free/Oil-based/Matt/72H acid resistance/Silver-hiding
	Glass Enamel(UV)	YD-UVWC305	Lead-free/UV series/Matt/72H acid resistance/Silver-hiding
Silver Paste	Silver Paste	YD-SS065	Lead-free/65%silver content
	Silver Paste	YD-SS080	Lead-free/80%silver content
Thinner	Thinner	002A/002D	Oil-based
	Thinner	S002	Water-friendly
	Thinner(UV)	YD-UV01	UV series

P.s:Products Catalog will be continuously updated

## ■ 工程建筑和太阳能玻璃釉料

建筑釉料适用于玻璃、彩色、彩晶玻璃、礞砂、夜光、防滑玻璃等。我司配备专业调色人员，配备精良的色差检测仪器，准确快捷地按客户样板或PANTONE（潘通）色卡、RAL色卡等调出各种颜色油墨，满足客户对产品颜色设计上的要求；带金属光泽闪光效果的高温彩晶油墨是我司在高温彩色油墨基础上使用在钢化玻璃产品上的重要突破，突显玻璃产品的尊贵特色。

太阳能玻璃釉料广泛应用于太阳能光伏玻璃。具有优异的印刷性能、良好的耐酸碱性、高反射率，色彩丰富等优点，可有效增加太阳能组件的发电转换率。



## Enamel for architectural glass and Solar PV glass

Architectural glass enamel applied on architectural glass, matt glass, luminous and skid-proof glass, color and metallic-colored tempered glass. With advanced apparatus and trained personnel, we can meet customer's color requirements both in PANTONE or RAL specifications. Metallic-colored enamel on tempered glass is a recent major break through, which bring out dazzling color effects.

Solar pv glass enamel are widely used in solar photovoltaic glass. It has excellent printing performance, good acid and alkali resistance, high reflectivity and rich color, which can effectively increase the power generation conversion rate of solar modules.



(油性、水性、UV系列)

## ■ 家电家具玻璃釉料

适用于冰箱玻璃、微波炉玻璃、显示屏玻璃、家具玻璃、底座玻璃（耐机械冲击、热冲击）、玻璃盖等。

(Oil-based, Water-friendly, UV medium system)

### Enamel for household appliance glass and furniture glass

It applies to the refrigerator, microwave oven, display screen, furniture, bottom base (mechanical impact resistance and thermal shock resistance) and pot cover tempered glass, etc.



(油性、水性、UV系列)

## ■ 触控玻璃釉料

适用于车载显示屏玻璃、手机玻璃、平板电脑玻璃等。具有遮盖性好、保持玻璃高冲击强度等优点，能与触控玻璃制作工艺完美结合。

(Oil-based, Water-friendly, UV medium system)

### Touch panel glass enamel

Suitable for car display glass, mobile phone glass, tablet glass and so on. It has the advantages of good opacity, high impact strength of glass etc. It can be perfectly combined with the touch glass manufacturing process.

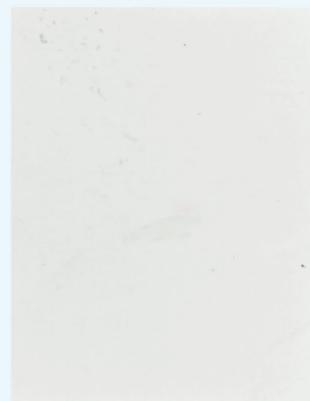




以上釉料均符合JC/T21678-2013《玻璃釉料》行业标准；符合欧盟RoHS指令，带●（含镉）除外；此样版色因印刷色差只作参考，一切以实物为准；  
All the above glass enamel can meet the JC/T21678-2013<GLASS ENAMEL>industrial standard and EU' s RoHS specification, except for the products with ● symbol(cadmiferous);Remarks color may be affected by printer, the above color is for reference only, real object should be considered as final.



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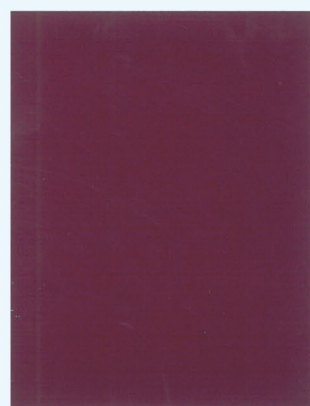
YD-W7700



YD-W7800



YD-W7900



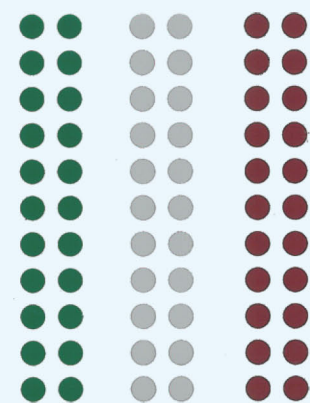
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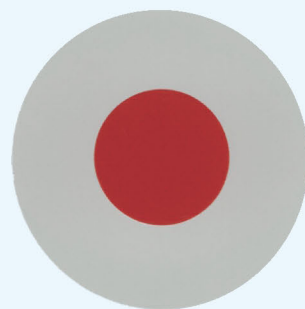
YD-S5300



防伪釉料: Anti-counterfeiting



套印釉料: Overprinting



夜光釉料: Luminous



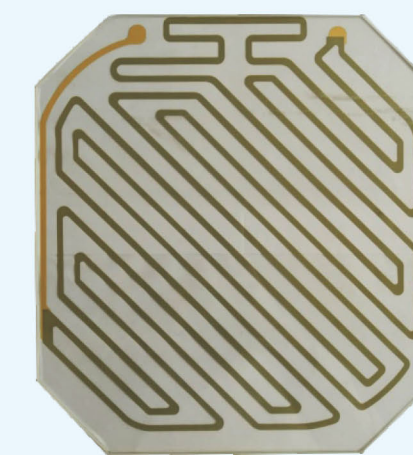
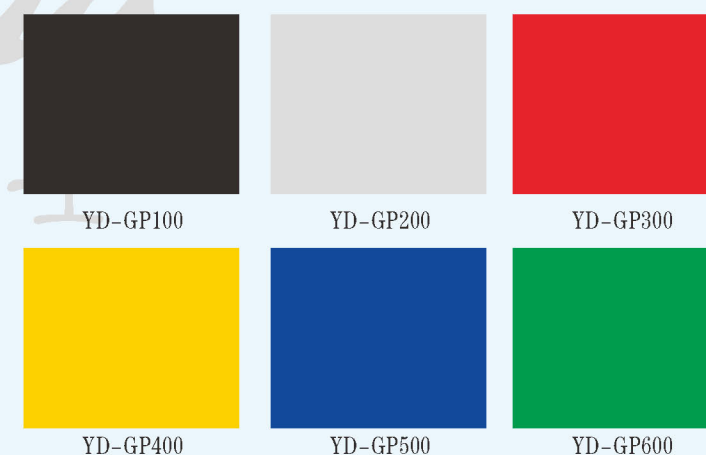
防滑釉料: Skid-proof

## 高硼硅玻璃釉料

该产品适用于高硼硅玻璃的表面施釉，符合RoHS及REACH标准，除了能配合高硼硅玻璃膨胀系数低、耐高温的特点外，奥迪博士高硼硅釉料还具有色彩鲜艳、印刷性能良好等优良特性，广泛应用于防弹玻璃、防爆玻璃、炉灶玻璃等领域。

## Enamel for high borosilicate glass

It applies to the surface of high borosilicate glass, which meets the standards of RoHS and REACH. Besides having the advantages of low coefficient of expansion and high temperature resistance, it also carries the great characteristics such as rich color selections and good printing performance. It is widely used in the fields of the bullet-proof glass, the explosion-proof glass and the oven surface glass, etc.



注：此样板色因印刷色差只作参考，一切以实物为准；

P.S:Remarks color may be affected by printer,the above color is for reference only,real object should be considered as final.

以上釉料均符合JC/T21678-2013《玻璃釉料》行业标准；符合欧盟RoHS指令，带（含镉）除外；此样板色因印刷色差只作参考，一切以实物为准；  
All the above glass enamel can meet the JC/T21678-2013<GLASS ENAMEL>industrial standard and EU' s RoHS specification,except for the products with • symbol(cadmiferous);Remarks color may be affected by printer, the above color is for reference only, real object should be considered as final.

# 数码钢化玻璃墨水

## Digital tempered glass ceramic ink

(油性、水性、UV系列)

### ■ 数码钢化玻璃墨水

适用于数码打印在玻璃上，利用计算机设计和打印出复杂的图案，墨水钢化烧结后，具有良好的耐酸性。

(Oil-based, Water-friendly, UV medium system)

### Digital tempered glass ceramic ink

The digital ceramic ink applies to the digital printing glass. Complex and delicate pattern can be designed and printed by computer. Excellent acid resistance after tempering.



# 玻璃发热陶瓷浆料

## Glass heating ceramic paste

(油性、水性、UV系列)

### ■ 玻璃发热陶瓷浆料 (专利号: ZL2009101313356)

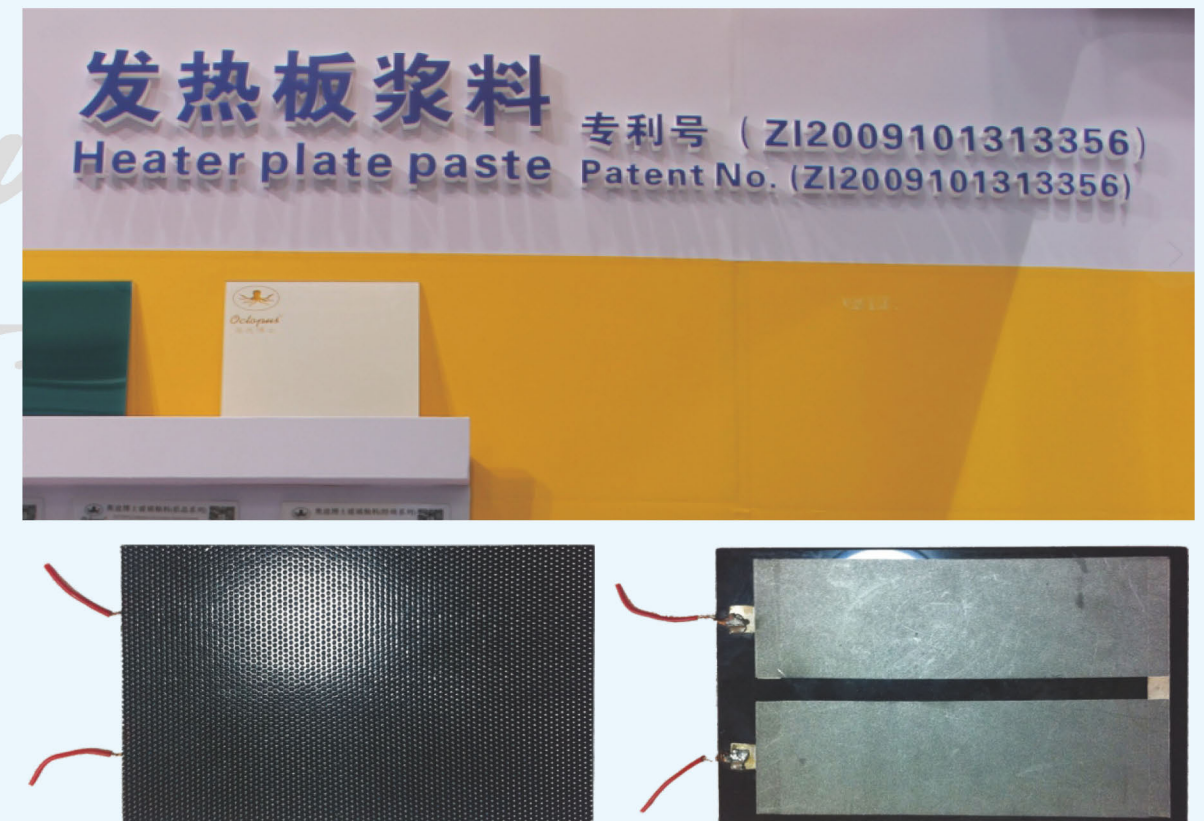
适用印刷于钢化玻璃和高硼硅玻璃上，钢化后具有良好的导电性能和发热性能。应用于制备出钢化玻璃发热板。

(Oil-based, Water-friendly, UV medium system)

### Glass heating ceramic paste

( Patent No. : ZL2009101313356 )

The glass heating ceramic paste applies to the tempered glass and high borosilicate glass. It possesses the excellent electric conductive and heating performance after tempering.



### ■ 钢化玻璃发热板

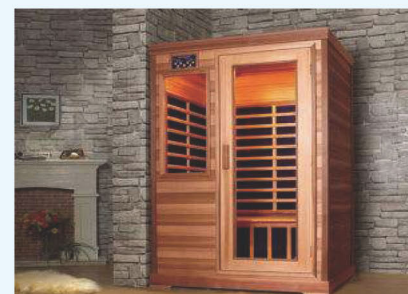
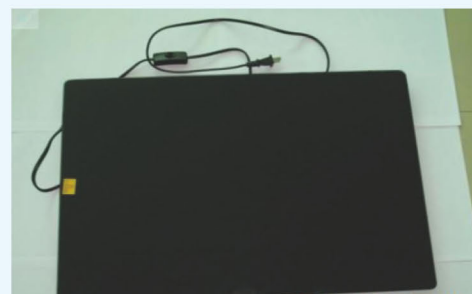
钢化玻璃发热板是将无机陶瓷、玻璃、多种导电材料和红外辐射材料经过印刷、高温烧结等工艺复合在钢化玻璃的外表面，与玻璃永久制成一个整体而形成一层无机导电膜作为发热材料，通电发热后玻璃表面发出红外热量，形成热辐射和传导，对流方式进行加热，其红外波长在2μm-15μm之间。

玻璃发热板融合了钢化玻璃、艺术玻璃、彩釉玻璃、功能玻璃等材料科技之精华，美观、安全、节能、实用。玻璃发热板工作时无明火，永不老化和褪色，适用于汗蒸房、汗蒸桶，长波辐射电暖器、食物保温用电热台板、电热桌面、毛巾干燥架、玻璃电暖器、玻璃天花板等平面辐射加热产品。可广泛应用于家居、办公等的装饰设计。

### Tempered glass heat-generating board

Tempered glass heat-generating board is the combination of inorganic ceramic, glass, various conductive materials and infrared radiation materials, which is compounded by printing and high-temperature sintering on the surface of tempered glass, being a permanent integration with glass as a layer of inorganic conductive membrane for heat-generating. Once galvanized and heated, it can generate infrared heat on the surface of glass, producing heat by heat-radiation, conduction and convection, Its infrared wavelength is between 2μm-15μm.

Tempered glass heat-generating board is good-looking, safe, energy-saving and practical, for it has extracted the distillation of tempered glass, art glass, glazing glass and functional glass. It has the advantages of no flame when working, never aging and fading, can be applied on Sauna Room, Foot Warmer and many plane radiation-heating products, including long-wave radiation electric heater, electric table, drying towel rack, meal warmer, electric heating glass screen and ceiling glass ect. It is available in the design of house and office.



### ■ 配件

- 刮胶：弹性好、刀锋锐利、溶胀率小、不易磨损、使用寿命长。
- 焊扣：种类丰富、使用与汽车玻璃、大巴玻璃、门窗玻璃上的各式连接线，焊接头。与奥迪博士油墨、银浆配合度高。
- 镜座：种类繁多，可来样来图定制，尺码精准。
- 焊锡：分为无铅焊锡和有铅焊锡。具有良好的热导率、容易上锡、焊接效果稳定等优点。

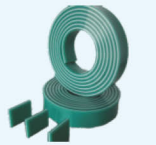
### Accessories

**Squeegee:** With excellent elasticity, sharp blade, lowswelling rate, high wearability and long service life for the printing jobs.

**Welding Buckle:** Rich selections. It can be used as all kinds of connecting cable or welding head for the automobile glass, bus glass, doors and windows glass. It is highly adaptable for the OCTOPUS enamel and silver paste.

**Mirror Bottom:** Rich selections and high precision on sizes. OCTOPUS mirror bottom can be customized according to the sample blueprints.

**Solder Tin Wire:** Divided into lead-free solder and lead solder. It has the advantages of good thermal conductivity, easy tinning and stable welding effect.



### ■ 产品包装

### Product packaging

包装桶规格 Packing drum specification

类型 (Type)	规格 (Specification)	公斤数/KG
油墨 (Glass enamel)	5L	5
	10L	20、25
	16L	30
	18L	40
银浆 (Silver Paste)	0.61L	1
	1.1L	2、3
木桶 (Paper bucket for outside packing)	d=38cm \ h=46cm	V=0.06

