



有机浸渗剂

ORGANIC IMPREGNATION SEALANTS

GQ-88C

说明书

INSTRUCTIONS BOOK

浸渗技术是

IMPREGNATION TECHNOLOGY IS

最大限度地

TO MAXIMIZE

充分利用有限的资源

THE UTILIZATION OF LIMITED RESOURCES

1. 有机浸渗的意义

The Significance of Organic Impregnation Technology

金属铸件是将液体状态的金属注入到模具里制造出来的，由于它可以在一定的质量范围内大量地廉价地制作出同样的铸件，所以，被人们广泛采用。

Metal casting is manufactured by injecting liquid metal into the mold, it is widely used because it can manufacture same castings in big batches under low cost within a certain range of quality.

近几年来，铸造技术的发展十分显著，多用于像以汽车发动机为主的生产，以大量生产为目的，与此同时，其存在的需要解决的问题也广为人知。其中的一个问题是在金属溶液固化时，因体积收缩会产生微孔和砂眼。带微孔的铸件经过反复加工后，有可能产生液体、气体的泄漏。如果设计的铸件形状复杂，就不容易防止微孔的产生，它直接就成了不合格的产品，要提高合格品的制造成本，就会影响生产计划的安排。

Recent years, the development of casting technology is very significant, mostly used for automobile engine production, the purpose is mass production, at the same time, its problems are also well known, requesting solutions. One of the problems is that when the metal solution solidifying, because of the volume shrinkage, micro pores and trachomas occur. A work piece with casting pores is possible to cause liquid and gas leakage after repeated processing. If the shape of the casting is

complexity, it is not easy to prevent the micro pores, which directly became substandard products and improve the manufacturing cost of qualified products, it will affect arrangements for the production plan.

如果对泄漏铸件进行有机浸渗处理,可以使合格率几乎达到 100%,既可以降低制造成本有可以提高质量和生产数量。采用本公司生产的有机浸渗液进行处理,可以使不合格的铸件达到合格,并且处理时间短,成本低。

If we have organic impregnation treatment on leaking castings, the pass rate can be almost 100%, not only reduces the manufacturing cost, but also improves the quality and quantity of production. After treatment by organic impregnation sealant manufactured by Huiyi factory, substandard castings can be qualified parts, the processing time is short and low cost.

2. 有机浸渗液 GAOQI—88C 的使用工目的

The Application Purpose of Organic impregnation sealant GAOQI-88C

采用 GAOQI 有机浸渗液处理 (有机浸渗液 GAOQI88C) 的效果如下所示。

The application effect of GAOQI organic impregnation sealant (organic impregnation sealant GAOQI88C) shown below.

A)赋予耐压, 密封机能: 将浸渗液充填到内外相通的微孔里, 可起到

密封作用。

To get anti-pressure, sealing performance: Seal the internal and external connected pores of products with impregnation solution and play a role as sealing.

B)赋予耐腐蚀机能：堵住相通或不相通的微孔，可防止内部腐蚀。

To get anti-corrosion performance: Fill in linked or unlinked pores to prevent internal corrosion.

C)合成处理的预处理：充填凹进去的处理面，可防止变色、腐蚀、剥落、以及膨胀。

Pretreatment of synthesis processing: Fill in recessed inside seam to prevent discoloration, corrosion, peeling expansion.

D)提高切削加工机能：充满金属内部的浸渗液，可起到润滑剂的作用。

To improve the cutting performance: Impregnation solution can play the role of lubricant to extend tool life, reduce machining costs.

E)提高物理强度：浸渗液充满并堵住乐微孔内部，缝隙减小物理强度可得到提高。

To increase physical strength: Inner gap is reduced, and improve physical strength, can design the product thinner.

F)提高绝缘性：堵住内部空洞，可提高起保护作用的电阻值。

To improve insulation: Closes the internal cavity and improve the protective effect of the resistance value.

3.有机浸渗液 GQ-88C 的特点

The Features of Organic Impregnation Sealant GQ-88C

GQ—88C 是把车间操作人员担心的不合理之处降到最小限度的有机浸渗液。从操作人员的角度出发，被浸渗物在品质上具有以下的良好特征。

GQ-88C is the organic impregnation sealant that minimizes the unreasonableness of the plant worried by operators. From the perspective

of the operator, impregnated parts have the following good quality characteristics.

A)它是有主剂以及固化剂两种液体组成的有机浸渗液。

It is organic impregnation sealant combines by main agent and curing agent liquid.

→因其由两种液体组成，所以，明显提高了它的保存性能不会像单一液体那样，在新的液体保存时发生质量异常的情况。再有，这两种液体的互溶性很好，混合时十分省事，混合后的浸渗液十分稳定，保管方法也非常简单。

→ It is combined by two kinds of liquid, therefore, significantly improved its storage performance, will not like a single liquid, abnormal quality occurs when a new liquid preserved. Further, miscibility of the two liquids is very good, mixture is very easy and stable, storage method is also very simple.

B)该浸渗液为水溶性，附着在被浸渗物的剩余浸渗液可以用水清洗掉。

The impregnation liquid is water-soluble, the remaining sealant on the work piece can be washed with water.

→不必使用很费事的有机溶剂，由于也没有添加界面活性剂，所以，不会给固化物造成不良影响。

→ There is no need to use organic solvents, since there is no added surfactant, therefore, will not cause adverse effects to the cured product.

C)设计上采用了低粘度设计，以便尽快大量地回收剩余浸渗液。

It adopts a low viscosity design, so that a largely recycle surplus impregnation sealant as soon as possible.

→通常将被浸渗物整个浸泡在很大地浸渗罐里，如果尽可能回收沾附在其表面剩余的浸渗液，就可以降低成本。

→ Impregnated parts usually immersed in a large impregnation tank, surplus sealant on the surface is recovered if possible, to save cost.

D)由于真空状态下的浸渗液的沸点非常高，所以可减轻真空泵的负荷。

Since the boiling point of the vacuum impregnation liquid is very high, it can reduce the load of vacuum pumps.

→在 10torr(10AHg)以下的真空状态下液体的沸点会急剧下降。

GQ-88C 在减压下状态下的沸点非常高，不会给真空泵造成负担。

→Boiling point of the liquid would drop dramatically under 10torr (10AHg) vacuum.

Boiling point of GQ-88C under a reducing pressure is very high, it does not make a burden to the vacuum pump.

E)在安全卫生方面也考虑得很周到。

Thoughtful consideration on safety and sanitation.

→虽然在处理装置的设计上会有所不同，但是，在进行浸渗处理时，周围常常笼罩着浸渗液雾，有时浸渗液还可能直接接触到皮肤。即使这样，您也能很放心地使用该浸渗液。

→ Although the design of the processing devices will be different, however, during the impregnation process, it is often surrounded by impregnation sealant steam, exudate may sometimes directly contact with workers' skin. Even so, please don't worry, you can safely use this impregnation sealant.

F)适用于各种材质

For a variety of materials

→以铝为主，青铜、铸铁，锌、烧制品、镁等材质都可以浸渗处理。

→ It is adapt to aluminum-based, bronze, iron, zinc, burning products, magnesium and other materials.

G) 可以达到高补效率

It can achieve high efficiency

→虽然微孔产生的状况不尽相同，但，通常浸渗处理的补救率几乎可以达到 100%的。可补救的微孔口径从几 μm —到几百 μm ,即使眼睛能看得到的大口径的缺陷孔，在一定的条件在也可以补救。

→Although micro pores occur in a variety of situation, typically remedy impregnation treatment rate reaches almost 100%. Remediable pore diameters can be a few μm to several hundred μm , even if visible defects large-diameter holes, can also be remedied in certain conditions.

4.有机浸渗 GQ-88C 的物理特性

The Physical Properties of Organic Impregnation Sealant GQ-88C

A) 外观：透明荧光色（混合液）

Appearance: transparent fluorescent color (mixed liquid)

B) 主要成分：甲基丙烯酸单基聚物

The main components: single-yl methacrylate copolymer

C)比重：1.06n/p（混合物）（主剂：1.06n/p； 固化剂：1.16n/p）

Specific gravity: 1.06n / p (mixture) (Main agent: 1.06n / p ; Hardener: 1.16n / p)

D)粘度： 9mpa·s（混合物）主剂：6mpa·s 固化剂：90 mpa·s)

Viscosity: 9mpa · s (mixture)) Main agent: 6mpa · s; Hardener: 90 mpa · s)

E)燃点：主剂为 109°C为危险物质第 4 类第 3 石油类（消防法）

Flash point: The main agent 109 °C belongs to dangerous substances Class 4 Petroleums No.3 (Fire Services Act)

F)固化条件:热水固化， 温度为 90°C时间为 10-15 分钟以内

Curing conditions: hot water curing, temperature is 90 °C, curing time is 10 -15minutes or less

热风固化 温度为 120-140°C以上时间为 60-90 分钟

Hot air curing, temperature is 120-140 °C, curing time is 60-90 minutes

G)气味：微脂味

Odor: Lightly butter flavor

H) 包装:

Package:

(1) 25KG 一套主剂 25KG (桶) + 固化剂 50 克 (袋)

20KG per set main agent 25KG (barrels) + curing agent 50 g (bags)

(2) 200KG 一套主剂 200KG (桶) + 固化剂 400 (袋)

200KG per set main agent 200KG (barrels) + curing agent 400 (bags)

I) 储藏稳定性: 主剂 1 年 (未开封 阴凉处)

Storage stability: main agent for 1 year (unopened, keep in shade)

固化剂 1 年 (未开封 冷藏 8-15 度)

Hardener for 1 year (unopened, refrigerator 8-15 degrees kept)

5.有机浸渗液 GQ-88C 的各种试验结果

The Results of Various Organic Impregnation Sealant of GQ-88C

经过有机浸渗处理得到密封的工件，其工作的周围环境非常苛刻。

For work pieces treated by organic impregnation sealant, the work environment quality is very harsh.

下述所示的是具有代表性的，在苛刻条件下进行的耐久性能试验。

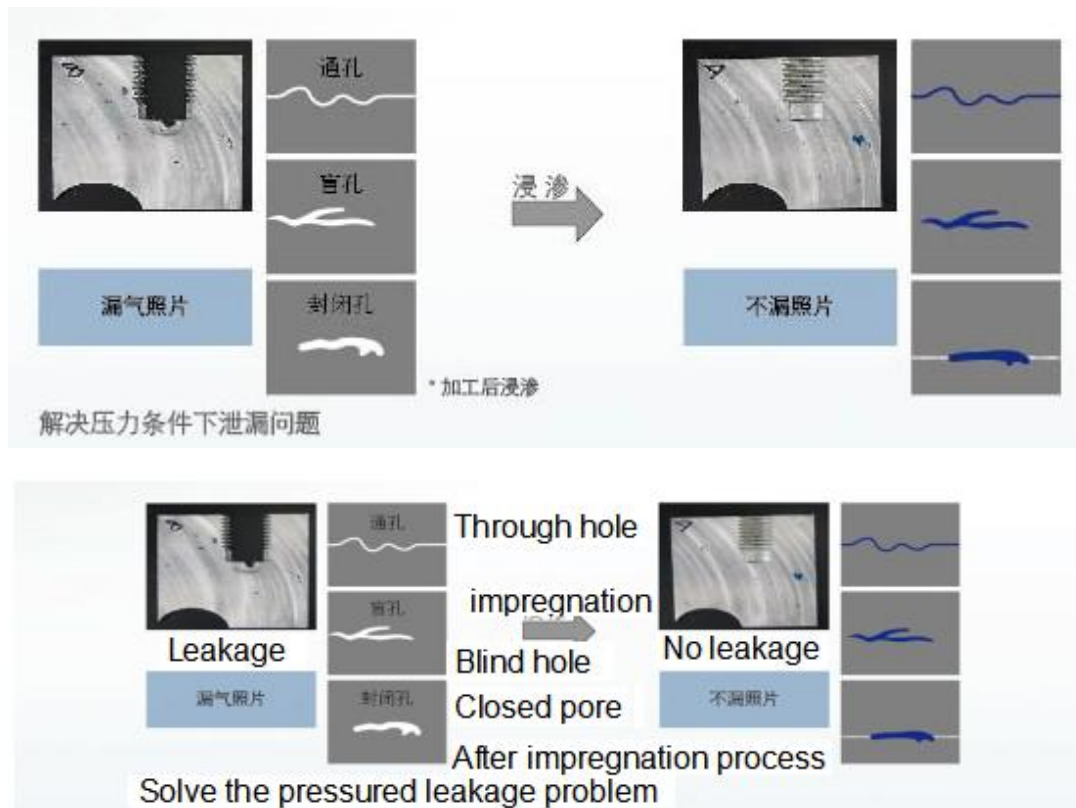
Shown below is representative results of the durability tests under harsh conditions.

试验条件

Test conditions

试验工件材质：AC-4C(砂型铸造)

Test work piece material: AC-4C (sand casting)



对产生泄漏的工件实施真空加压浸渗处理

Take vacuum pressure impregnation process to a leaking work piece

加入气压为 0.6MPa 的压力，实施封孔确认的试验

Add a pressure of 0.6MPa, to have a confirmed sealing test.

A)耐热性 200°C×50 小时 合格

Heat resistance 200 °C × 50 hours PASS

→在保持 200°C的恒温槽内连续放置 50 个小时的苛刻条件下进行的密封性结果良好。

→Continuously kept for 50 hours in a oven at constant temperature 200 °C, the results of the sealing test is good.

B) 耐热水性 100°C×10 小时合格

Hot water resistance 100 °C × 10 hours PASS

→在保持 100°C的热水中连续放置 10 个小时的苛刻条件下进行的密封性结果为良好。

→Continuously kept for 10 hours in hot water at constant temperature 100 °C, the results of the sealing test is good.

C)耐机油性 120°C×50 小时合格

Oil resistance 120 °C × 50 hours PASS

→在保持 120°C的机油中连续放置 50 个小时的苛刻条件下进行的密封性结果为良好。

→Continuously kept for 50 hours in machine oil at constant temperature 120 °C, the results of the sealing test is good.

D)耐 LLC 性 100°C×10 小时合格

LLC resistance 100 °C × 10 hours PASS

→在保持 100°C的 LLC 中连续放置 10 个小时的苛刻条件下进行的密封性结果为良好。

→Continuously kept for 10 hours in LLC at constant temperature 100 °C, the results of the sealing test is good.

E)耐润滑性 120°C×50 小时合格

Resistant lubricity 120 °C × 50 hours PASS

→在保持 120°C的润滑油中连续放置 50 小时的苛刻条件下进行的密封性结果为良好。

→Continuously kept for 50 hours in lubricating oil at constant temperature 120 °C, the results of the sealing test is good.

F)耐汽油性室温×7 天合格

Gasoline resistance at room temperature × 7 days Qualified

→在室温条件下的汽油中连续放置 7 天，在暴露条件下进行的密封性结果为良好。

→Continuously kept for 7 days in gasoline under room temperature and exposed condition, the results of the sealing test is good.

H)耐灯油性室温×7 天合格

Light oil resistance at room temperature × 7 days Qualified

→在室温条件下的灯油中连续放置 7 天，在暴露条件下进行的密封性结果为良好

→Continuously kept for 7 days in light oil under room temperature and exposed condition, the results of the sealing test is good.

I)耐氟利昂性 R22 室温×7 天合格

Freon R22 resistance at room temperature × 7 days Qualified

→在室温条件下的氟利昂性 R22 中连续放置 7 天，在暴露条件下进行的密封性结果为良好

→Continuously kept for 7 days in Freon R22 under room temperature and exposed condition, the results of the sealing test is good.

J) 耐氟利昂性 R134A 室温×7 天合格

Freon R134A resistance at room temperature × 7 days Qualified

→在室温条件下的氟利昂性 R134A 中连续放置 7 天，在暴露条件下进行的密封性结果为良好

→Continuously kept for 7 days in Freon R134A under room temperature and exposed condition, the results of the sealing test is good.

K)冷热循环性-20°C×1 小时—150°C×1 小时 50 次循环合格

Thermal cycling between -20 °C × 1 hour - 150 °C × 1 hour, × 50 cycles Qualified

→利用冷热循环试验器进行的密封性结果为良好

→The results of the sealing test by thermal cycling tester is good.

L)震动试验 JIS 标准震动试验 合格

Vibration test JIS standard vibration test Qualified

→利用震动试验器进行的密封性结果为良好进行的密封性结果为良好

→The results of the sealing test by vibration tester is good.

M) MIL-I-6869D 各种试验 合格

MIL-I-6869D various tests Pass

→按照 MIL 标准规定的耐喷沙、耐油脂清洗、涂漆影响等的试验全都合格

→ Tests according to MIL standards for sandblasting resistance, oil cleaning resistance, painting impact test All Qualified

6.浸渗剂使用注意事项:

Operation Tips:

1. 浸渗的产品不能有水.油.金属杂质

The impregnated product should be out of water, Oil and metal impurities.

2. 浸渗剂的保存应在 15°C以下环境

Impregnation Sealants should be kept below 15 °C environment.

3. 浸渗剂要经常过滤，保持干净无杂质

Impregnation Sealants should always be filtered, keep it clean and free of impurities

生产商 Manufacturer:

苏州汇毅工业材料科技有限公司

Suzhou Huiyi Industrial Materials Technology Co., Ltd.

苏州浸渗机械设备有限公司

Suzhou Huiyi Impregnation Machinery Co.,Ltd.

TEL:0512-67484837 FAX:0512-62576786

E-mail:888suzhou@163.com

Mobile:13862418760

