

# FAQs

## 常见问题解答

### Questions and answers to the Petrof piano

关于 Petrof 钢琴的问题和解答

#### **What defects of the soundboard affect the piano sound?**

#### **音板存在的哪些瑕疵会影响到钢琴的音色？**

The piano soundboard can have several possible defects or imperfections. Piano owners are always interested in how far or if these phenomenon's influence the piano's performance.

钢琴的音板可能会存在几种可能的缺陷和不足。所以大多数钢琴拥有者都想知道这些现象是否会影响钢琴的表现，假如有的话，其影响程度又有多大？

#### **Wavy or wrinkled soundboard:**

有起伏或是有褶皱的音板：

If the piano is placed in space with increased air humidity its soundboard can be slightly wavy or have little bumps along the grain of the sound board. This deformation is a regular feature of the soundboard. The soundboard is crowned, glued to the wooden frame around its periphery, loaded by the strings from above. It has no chance to increase its crown upon increased humidity while swelling. So it crinkles, forms compression ridges, and compressed itself a little. This compression appears along the grain or glued joints in the soundboard. These symptoms have only aesthetic importance and they don't affect acoustic properties of the pianos, they are not a defect of the soundboard. Quite the opposite these symptoms are the signs that the soundboard was well moisture conditioned to the low moisture content before its assembly to the piano. Such soundboard is able to resist very low air humidity and there is minimal risk of cracking.

假如钢琴放置的环境中空气湿度不断增加，会造成音板有轻微的变形或是在音板的表面有微微的突起。这样子的变形对于音板来说是很常见的。音板是用胶水镶嵌在木质框架的边缘，上面固定着琴弦。当因为湿度增加而造成膨胀的时候，其镶嵌部分不会同比膨胀。所以会出现褶皱，形成挤压的脊状突起。这些挤压通常还会出现在音板的纹理以及胶水粘合点。这些现象只会影响到钢琴的美观程度，但不会给音色带来很大影响，因为这不是音板本身的质量问题。相反这些现象反而证明了音板在组装到钢琴上之前，都做了防潮处理以适应各种潮湿程度不同的环境。出现这种情况的音板能够抵抗湿度相

对较低的环境，并且将出现裂痕的风险降到最低。

### **Cracked soundboard:**

出现裂痕的音板：

The cracks in the soundboard can develop in consequence of very low air humidity and low wood moisture content (tension cracks) or on the contrary in consequence of very high humidity (compressive and shearing cracks).

音板上的裂痕通常是由于空气湿度相对较低以及木材的防潮程度较低（干裂）或者恰恰相反，是由于湿度太高（胀裂）而引起的。

The cracks in themselves have no influence on the acoustic properties of the piano, they don't reduce its acoustic output or change the tone color. Simplified it can be said if the ribs and bridges are well glued the soundboard keeps its shape and none of its part generates any unwanted noise, then the cracks have no negative influence on soundboard function. But usually big soundboard cracks are repaired for aesthetic reasons.

音板上的裂痕一般不会影响钢琴的音色，这些裂痕不会减轻音量或是改变原本的音色。简单来说，只要肋架和琴桥与音板紧密粘合没有变形，并且没有发出其他杂音，那么这些裂痕对于音板的功能是基本没有负面影响的。不过通常出于美观的需要，音板上较大的裂痕需要修补。

### **Unglued ribs or bridges:**

肋架或琴桥脱胶：

Ribs that have released from the soundboard decrease rigidity of the soundboard's crown. They can effect deformation of the soundboard and loss of the down bearing. This can be the reason of noises or change of the tone color or decreasing of acoustic output of the piano.

肋架在音板上的排列是逐级递减，直到音板的顶部。它们会影响音板的变形，这些都是可能导致音色的变化以及音量减弱的原因。

Unglued or cracked bridge or loose bridge pins are also serious problems that decrease the acoustic output of an instrument and they can be a source of noises.

脱胶或是有裂痕的琴桥或是松脱的琴桥钉都是会导致音量减弱的严重问题，同时也会造成杂音。

**Some pianos have an absolute smooth surface; other ones have a grainy look. What is the reason?**

## 有些钢琴音板看起来表面十分光滑，另一些则会有些凹凸不平，是什么原因导致的呢？

Surface smoothness of the piano soundboard panels depends on the quality of the panels. That depends on their flatness and on the quality and age of the lacquer layer. All Petrof piano soundboard panels and parts are made from perfectly flat and smooth grade "A" materials.

钢琴音板镶板表面的光滑程度取决于镶板的质量。这取决于镶板本身的平整度以及油漆层。所有 Petrof 钢琴的音板镶板以及部件全都使用平整度和光滑度达到 A 级的原材料。

Layers of high gloss Lacquered parts that are then varnished with polyester lacquers are very thick and it tends to reduce its volume (thickness) a little after some time. This contraction is characteristic just for polyesters. Therefore newly sprayed and polished surface is perfectly flat and smooth.

高度抛光的油漆部件表层全部都上了较厚的聚酯油漆，这样的话能够减低日后油漆层的整体厚度。这样的收缩是聚酯油漆独有的特色。所以新喷漆以及抛光的表面都十分的平整以及光滑。

A gentle shrinkage of the lacquer layer can occur after several months or years and its surface can warp a little. Then it can appear not to be perfectly smooth. If these gentle waves become aesthetically unacceptable usually such parts can be re-sanded and re-polished.

油漆表层的轻微收缩通常出现在几个月或是几年之后，其表面会有轻微的褶皱。这就会导致其表面看起来不那么光滑。假如这些轻微的波纹演变成为严重影响美观的话，通常可以将这些部件进行重新打磨以及抛光。

## What is resistance of the adhesives used in Petrof pianos?

### Petrof 钢琴使用的是什么粘合剂？

In all currently produced **Petrof upright pianos** we use only synthetic adhesives, namely PVAC (polyvinylacetatechloride – white glue) or two component carbamide-formaldehyde glue. All these adhesives have a high degree D3 or D4 water resistance.

现在生产的 **Petrof 立式钢琴** 我们只使用合成粘合剂，被称为 PVAC（聚醋酸乙烯乳液 – 白胶）或是含有两种混合物的异尿素甲醛树脂合成胶水。这些粘合剂都达到了高度防水 D3 或 D4 的标准。

Construction-joints of **Petrof grand pianos** are also glued with the same adhesives as upright pianos, only profiled edges of the cheeks and damper felt of Petrof actions are glued with natural hide glue.

**Petrof 三角钢琴** 的连接部件与立式钢琴使用的是同样的粘合剂，只有 Petrof 击弦机表面以及减音器使

用的是天然骨胶。

## **How are Petrof pianos protected against extreme climatic conditions?**

### **如何在极端气候环境下养护 Petrof 钢琴?**

Extreme climatic conditions are understood to be high temperatures and high air humidity and then causing high wood moisture content.

极端气候环境通常指的是高温以及高湿度从而引发木材湿度过高。

All currently produced **Petrof grand pianos** are tropicalized. That means all the wooden piano parts except the action are coated with varnishes that are resistant against infusion of air humidity. Outer polished surfaces are coated with polyester lacquers, other surfaces with polyurethanic or acrylic coatings. There are no open surfaces on the pianos that would enable absorption of air humidity. The Petrof Company steadily takes great care of instruments to insure humidity resistance, continually searching for more effective coatings to protect wood more efficiently.

现在所有出产的 **Petrof 三角钢琴**都是经过耐热处理的。这意味着钢琴的木质部件除了击弦机以外都上了保护涂层，以防止空气湿度过高。外部的抛光表面也都上了一层聚酯油漆，其他表面则都上了聚氨酯或是丙烯酸树脂保护层。所有的钢琴外部表面全都可以防潮。**Petrof** 公司坚持不懈的将每架钢琴做到最好来防止潮湿带来的损害，并且也在不断研发更为有效的涂层来保护木材，防止潮化。

**Petrof upright pianos** are produced in two variants. Standard instruments intended to climatic conditions of middle climatic zones have some edges or hidden surfaces without special finish. The instruments that are intended for extreme wet climatic conditions, the Tropics, are Tropicalized as well as all the grand pianos. That means all the surfaces including hidden surfaces are special coated with polyurethanic or acrylic coatings against diffusion of air humidity.

**Petrof 立式钢琴**通常有两种生产种类。标准钢琴通常适应于中部气候区，其边缘以及其他隐藏表面通常都没有上特别保护层。而另一种则是能够适应极端潮湿的环境，比如热带气候环境，都和三角钢琴一样，经过耐热处理。这表明其边缘以及其他的隐藏表面全部都有聚氨酯或是丙烯酸树脂保护层，以对抗较高的空气湿度。

## **What types of lacquers are used for pianos high polished finishes?**

### **高抛光钢琴使用的是哪种油漆抛光剂?**

All the polished surfaces of Petrof pianos are coated with polyester lacquers, black as well as white or transparent. Coating suppliers for many years systematically cooperate with Petrof factory. New coatings Used are more elastic to minimize the risk of surface cracks with temperature and humidity

loading. Also the adhesion of lacquers to wooden surfaces is improving. Nevertheless it still holds generally that pianos must be protected against direct solar radiation (UV).

所有 Petrof 钢琴的抛光表面都有聚酯油漆的保护层，无论是黑色，白色或是透明色。表层涂料的供货商与 Petrof 公司已经合作多年。现在使用的新涂层具有更好的伸缩性，能够将因为气温以及湿度而导致的表面裂痕的风险降到最低。同时，油漆与木材的融合程度也得到提高。尽管如此。钢琴仍然要防止直接的阳光曝晒。

## **How are the brass fittings protected?**

### **如何保养黄铜配件？**

All the polished brass fittings of Petrof grands as well as uprights are currently coated with special stoving varnish and they are fully stain resistant. Of course this manner of coated fittings must not be treated with polishing agents containing any abrasives or harsh chemicals.

所有经过抛光的 Petrof 三角以及立式钢琴的黄铜配件全部都有特殊的烘干涂层，可以避免褪色的情况出现。但是这些涂层不得进行抛光处理，比如研磨或是强刺激性的化学试剂。

## **How does Petrof protect their pianos in shipping?**

### **在装运过程中，Petrof 如何保护钢琴？**

Petrof uses the most up to date packaging systems; Petrof protects the instruments with great care. The packaging is hermetical sealed. There are siccatives decreasing air humidity and special agents protecting metal parts against corrosion inside the instruments...

Petrof 采用最先进的包装系统；Petrof 对其乐器进行最为周全的保护措施。所有的包装全部经过密封处理。采用了油漆催干来防止空气湿度可能带来的影响，以及对所有金属部件都有特殊的保护处理。以防止运输过程中的碰撞对钢琴的损害。