

# TECHNICAL DATA SHEET

## PFCP203 BAKELITE

|                            |   |
|----------------------------|---|
| EFFECTIVE DATE<br>发布日期     | March 8, 2020                                       |
| REVISED DATE<br>修改日期       | August 11, 2021                                     |
| TRADE NAME<br>产品名称         | BAKELITE / PFCP 203 / PL-PEM-P                      |
| REFERENCE STANDARD<br>参考标准 | IEC 60893-3-4:2003 / GB/T 1303.6-2009<br>JIS K 6911 |

|  |                                |            |
|--|--------------------------------|------------|
| <b>SECTION I - MISC CHARACTERISTICS</b><br>第1部分-主要特点 |                                |            |
| DENSITY<br>密度  | g/cm <sup>3</sup>              | 1.35 -1.45 |
| FLAMMABILITY<br>燃烧性                                  | UL94                           | HB         |
| WATER ABSORPTION (5MM)<br>吸水性                        | %                              | ≤ 2        |
| CHEMICAL FAMILY<br>化学品类                              | Resin                          | Phenolic   |
| REINFORCEMENT TYPE<br>增强材料                           | Paper                          | Kraft      |
| <b>THERMAL CHARACTERISTICS</b><br>耐热性能               |                                |            |
| Colour<br>颜色   | Orange, Black, Yellow (Nature) |            |

|   |     |        |
|---|-----|--------|
| <b>SECTION II - MECHANICAL CHARACTERISTICS</b><br>第2部分-机械性能 |     |        |
| FLEXURAL STRENGTH (23°C±2) ⊥<br>弯曲强度                        | MPa | ≥ 120  |
| FLEXURAL MODULUS ⊥<br>弯曲弹性模量                                | MPa | ≥ 7000 |
| TENSILE STRENGTH (LENGTHWISE)<br>抗拉强度                       | MPa | ≥ 100  |
| COMPRESSIVE STRENGTH ⊥<br>压缩强度                              | MPa | ≥ 150  |
| BONDING STRENGTH<br>层向粘结强度                                  | N   | ≥ 3000 |

|  |     |                       |
|--|-----|-----------------------|
| <b>SECTION III- ELECTRICAL DATA</b><br>第3部分-电气性能 |     |                       |
| ELECTRICAL STRENGTH (90°C±2, Oil) //<br>平行层向电气强度 | kV  | ≥ 10                  |
| INSULATION RESISTANCE<br>绝缘电阻                    | Ω   | ≥ 5.0x10 <sup>7</sup> |
| ARC RESISTANCE<br>耐电痕指数                          | PTI | ≥ 100                 |



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### SECTION 4 - HAZARDOUS INGREDIENTS

#### 第4部分-有害物质成分

HAZARDOUS COMPONENTS

有害物质

No OSHA Hazardous Ingredients

### SECTION V - REACTIVITY DATA

#### 第5部分-反应相关数据

CHEMICAL STABILITY

化学稳定性

Stable under normal conditions.

正常情况下稳定

INCOMPATIBLE MATERIALS

不相容物质

Exposure to strong acids or bases will cause damage

接触强酸或强碱会造成损坏

HAZARDOUS POLYMERIZATIONS

危险的聚合

Will not occur

不会发生

### SECTION VI - WARPAGE AND DEFLECTION

#### 第6部分-翘曲度和挠度

THICKNESS (MM)

WARPAGE (%)

> 1.6 - 3.0

≤ 3.0

> 7.0 - 20.0

≤ 0.65

About 1000 MM, less than 900MM on one side is not suitable here.

THICKNESS (MM)

WARPAGE (%)

> 3.0 - 7.0

≤ 1.30

> 20.0

≤ 0.30

### SECTION VII - SIZE AVAILABLE

#### 第7部分-尺寸

THICKNESS (MM)

1020\*1020 (MM)

1020\*2040 (MM)

1220x2440 (MM)

3.0 - 5.0

√

√

-

6.0 - 20.0

√

√

√

25 - 50.0

-

√

√

### SECTION VIII- TOLERANCE

#### 第8部分-公差

THICKNESS (MM)

TOLERANCE (MM)

3.0 - 5.0

±0.35

6.0 - 10.0

±0.50

12.0 - 15.0

±0.75

Thickness in Length & Width is within ±5 MM

THICKNESS (MM)

TOLERANCE (MM)

16.0 - 20.0

±1.25

20.0 - 30.0

±1.75

30.0 - 50.0

±2.0

### SECTION IX - MACHNING PRECAUTIONS

#### 第9部分-加工注意事项

1. Please work in well ventilated rooms during machining or heating. Workshop should be equipped with suction system for provision of dust safety.请在通风良好的室内场所加温产品或加工。加工场所应具备抽气集尘设施。

2. Before any punching process, product should be preheated by convectional hot-air or contacting flame. Boiling in water prohibited. 冲裁加工前产品可能需要预热，可以使用热空气对流或火焰接触的方式，但不可置于水中煮沸加温。

3. Due to laminate feature of the products, processing direction should be vertical to laminates. Processing parallel to laminates may cause de-lamination between layers. 由于本产品为积层产品，加工应从正面垂直方向，从侧面(厚度方向)为层间黏合的位置，加工易开裂。



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4. For better processing efficiency, please choose carbide tools while always keep the knives of tools sharpened. Do not use cooling agent or water to cool down the abrasive heat which occurs during processing. 为了更好的加工效率，刀具的材质须使用高碳钢，注意研磨锋利。加工时刀具和产品间的磨擦，导致温度上升，只宜空气冷却，切不可用冷却剂或水来降温冷却。

### SECTION X - STORAGE PRECAUTIONS

#### 第10部分- 储存注意事项

To prevent moisture or sunlight damage, the products should be stored indoors in cool and dry conditions. Discoloration in the products after long term storage is a normal chemical feature.

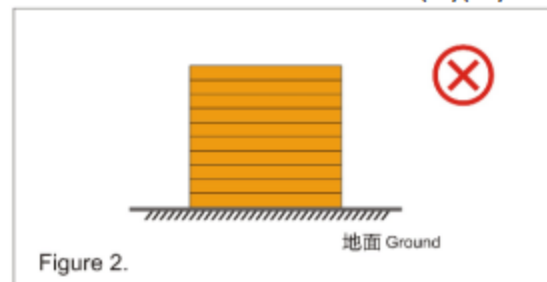
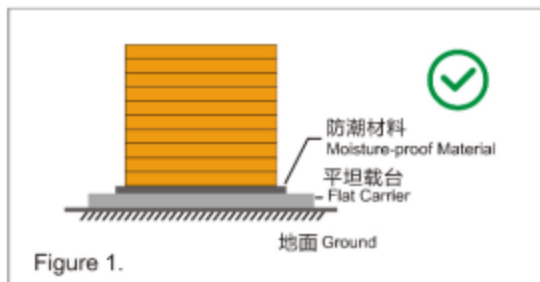
为避免淋雨及阳光照射请，储存场所应为较低温而且干燥的室内。存放时间久所造成颜色变深的情况是本产品的化学特性，为正常的现象。

Unsuitable storing conditions results in inferior quality products, e.g. sunlight may rapidly discolor products, high temperature and moisture may cause a decrease in electrical performance and warping or twisting.

不良的储存场所会造成产品质量的急速劣化；如阳光照射会导致产品急速变色，高温及高湿的储存环境容易引致产品电气性能衰退及平板弯曲、扭曲变形。

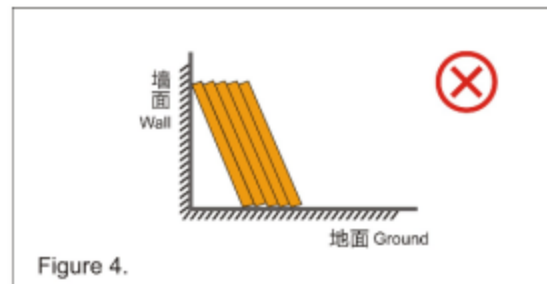
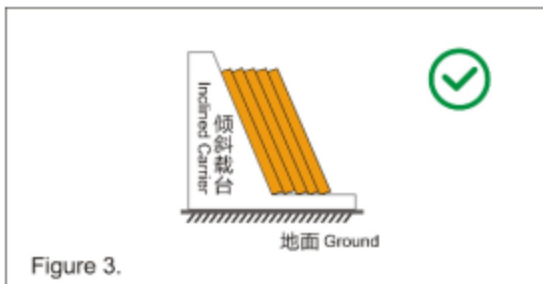
For long term storage, the products should be placed in flat carriers horizontally, with a moisture-proof protecting material between products and carrier, shown as figure 1 and figure 2.

长期存放时，应水平放置于可以隔绝潮湿且平坦的载台上，并用防潮的平坦材料阻隔湿气，如图(一)(二)所示。



For short term storage, the products could be stored at inclined carrier, but the carriers should be moisture-proof and have a smooth surface, shown as figure 3 and figure 4.

短期待加工存放时，可斜靠放置于隔绝潮湿的倾斜载台上，但该载台须具备平坦的倾斜面供斜靠放置，如图(三)(四)示。



#### Notes:

##### 备注:

All information recommendations and suggestions appearing herein concerning this product are based upon data obtained at room temperature by regularly statistic analyses. The values here are not legally binding or fully comply with standards so that we cannot accept any responsibility for the accuracy. The data relate only to specific material designated herein and do not relate to use in combination with any other material or any other process.

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