

## 技术数据表 Technical Data Sheet



### PA66 HY1800Z

#### 通用型树脂 / General Purpose Resin

#### 产品信息 Product Information

名称: 聚己二酰己二胺 66 / 尼龙 66 树脂

Name: Polyamide 66/Nylon 66 Resin

CAS: 32131-17-2

#### 产品描述 Product Description

HY1800Z 为通用型注塑级尼龙 66 产品, 抗张强度高、韧性好、耐冲击性好; 具有较好的流动性、自润滑性、耐磨性、抗低温性和自熄性。

HY1800Z is a general purpose Nylon 66 resin. This resin offers a well-balanced combination of engineering properties characterized by high strength; good toughness; high impact; good flow and surface lubricity; abrasion resistance; resistant low temperature; self-extinguishment.

#### 产品安全 Product Safety

##### 急救措施的描述

吸入	如意外吸入蒸汽或分解产物, 将受害者移到空气新鲜处。
皮肤接触	无需特殊的防范措施。
眼睛接触	不是一种预期的接触途径。无需立即就医。
食入	不是一种预期的接触途径。如吞咽: 立即呼叫中毒中心或医生。

##### 特别危险性

热分解会导致释放出刺激性和有毒气体和蒸气

##### Description of first aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours or decomposition products.
Skin Contact	No special technical protective measures are necessary.
Eye Contact	Not an expected route of exposure. Immediate medical attention is not required.
Ingestion	Not an expected route of exposure. If swallowed, call a poison control centre or physician immediately.

##### Special Hazard

Thermal decomposition can lead to release of irritating and toxic gases and vapours

## ■ 典型应用 Typical Applications

HY1800Z 除一般应用外，特别适用于对流动性能及耐低温性能要求较高的注塑制品，终端应用主要集中在机械、电子电气、仪器仪表、汽车部件、铁路、家电、通讯、扎带及精密工程制品等，亦可用于生产医疗器械、体育用品、日用品等。

In addition to general applications, HY1800Z is especially suitable for injection molding products with high requirements for fluidity and low temperature resistance. It's terminal applications are mainly in machinery, electronics and electrical, instruments and meters, automobile components, railways, home appliances, communications, cable ties and precision engineering products, etc. It can also be used to produce medical equipments, sporting goods, daily necessities and so on.

## ■ 使用指南 Guidelines for Molding

1. 本产品的包装为防潮包装，在未开封前水分含量恒定，建议开封后尽快使用。在使用已开封的产品前，建议对其进行必要的除湿干燥，以确保注塑制品质量和注塑过程的稳定性。干燥温度不宜过高，最高不应超过 70℃；时间不宜过长，最长不应超过 5 小时。

Our nylon 66 resins arrive packaged in moisture-protected containers. If you didn't open the original package prior to use, then drying is not necessary. However, if drying is necessary for using the opened package, we recommend that you use dehumidifying with maximum temperature of 70 °C or 5 hours.

2. 注塑温度不宜过高，建议以 275 °C ~ 295 °C 为宜。过高的温度容易使尼龙 66 树脂在高温状态下裂解，产品性能下降。The recommend melt temperatures are 275 °C to 295 °C. Nylon 66 resin is easy to decompose under too high temperature, and then decrease product properties.

3. 在注塑生产过程中，应控制模具温度，以 15 °C ~ 90 °C 为宜，建议模具温度保持在温度区间的上线，过低的模具温度会导致尼龙 66 树脂流动性变差，制品表面光洁度差或表面缺陷、制品收缩率高。

Maintain mould surface temperatures in range of 15 °C ~ 90 °C. We recommend the temperatures on the high end. Under low temperature nylon 66 resin flows worse, bad or defect appearance, shrinkage of the moulded part.

4. 保压时间至少应长于浇口物料的凝固时间。

Hold pressure time should be set until the gate freezes.

5. 为提高注塑制品质量，建议在新料中不使用或尽量少使用回料。在使用回料前，应对 其进行相应的干燥除湿处理，保证其水分含量与新料接近。须注意，随着加工次数的增加，回料的性能下降很明显， 请谨慎使用经多次加工的回料。

As to get high performance of the moulded part, we recommend no use or less regrind material mixed with virgin resin.

Regrind must be dry when moulded. The preferred procedure is to grind and reuse immediately after moulding, otherwise regrind shows significant property loss.

## ■ 免责声明 Disclaimer

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The typical parameters in the TDS is to detect based on relevant standards, as a reference for customers to choose products, which does not mean that the commitment of Huayang Nylon on performance indicators.

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Huayang Nylon reserves the right to revise this manual without prior notice; if necessary, please ask us for the latest version.

## ■ 典型参数 Typical Parameters

项目 Item	单位 Unit	测试标准 Test Standard	典型值 Typical Value
物化性能 physical&chemical properties			
相对粘度 relative viscosity	-	QB	2.66±0.05
端胺基 -NH <sub>2</sub>	Meq/kg	QB	42±5
端羧基 -COOH	Meq/kg	QB	
黑粒 Black specks	%	QB	
含水率 water content	mg/kg	GB/12006.2-89	≤3500
机械性能 Mechanical properties			
拉伸强度 tensile strength	Mpa	ISO527	75
断裂伸长率 elongation,at bread	%	ISO527	68
弯曲强度 flexural strength	MPa	ISO178	100
弯曲模量 flexural modulus	MPa	ISO178	2620.3
冲击强度（无缺口） charpy impact strenth	KJ/m <sup>2</sup>	ISO179	NB
缺口冲击强度 charpy notched impact strength	KJ/m <sup>2</sup>	ISO179	6.3
热性能 thermal properties			
熔体流动速率 melt flow rate	g/10min	ISO1133	60
熔点 melting point	°C	DSC	260
热变形温度 heat deflection temperature	°C	ISO 75(0.45MPa)	186