

# RECOMMENDATIONS FOR STORAGE, TRANSPORT AND HANDLING OF OUR PLASTIC MATERIALS AND PARTS

## 1. SCOPE

The high performance plastic materials like TKG® PEEK, are valuable construction materials for high demanded products like in the semiconductor, aerospace and nuclear industry, machine construction and food and medical technology.

Therefore, it is required a suitable and careful handling from everybody.

TKG® PEEK stands as a representative for semi-crystalline materials with very good chemical resistance and high wear resistance.

TKG® PC stands a representative for amorphous materials with good dimensional stability but something with stress cracking sensitivity by using solvents.

## 2. MARKING

Semi-finished products and cut pieces have to be marked well defined to avoid confusion with the same appearances material.

Identification like in the difference of the density. Natural colour of TRADAMID® G is yellowish or white like for TRADAMID® G.

TRAD VILLARROYA products have a clear identification sticker on the product surface of rods, plates and tubes down to dia. 15 mm. including material DIN name, size, batch number and production date for traceability.

## 3. STORAGE

Storage well defined and sorted in a closed room or under a roof as protection from weathering. Light discolouring the surface caused by UV radiation may have no marginal effects on the properties because only some microns of thickness are met. The surface will be machined later, anyway. No direct full sun light to avoid thermal caused deformation or material stress.

## 4. TEMPERATURE

Minus up to plus temperature from (- 30 to + 60 °C) have no negative influence at the properties. As the most of the plastics at extremely minus temperatures.

## 5. PLACING

Store dry, lay it flat and even good supported to avoid deformation from the own weight or place it upright in a rack. Short tubes should be stored upright to avoid oval deformation. Give enough time for acclimatization in a warm room before machining. Handle it careful and with fine feeling. No hard kicks or throw or falls.

## 6. CHEMICAL INFLUENCES

No contact with chemicals and water. Clean water has no negative influence. Store separate from chemicals.

## 7. RADIATION

No uncontrolled high-energy radiation unless TKG® PEEK is very high resistant against that radiation. TKG® PC is more sensitive and tends to yellowing. TKG® AL and TKG® FLON materials are extremely sensitive.

## 8. FIRE SAFETY

Do not store together with other flammable products like fuel, oil, solvent or other chemicals. From our plastic products does not come a danger of self ignition in a normal environment.

## 9. HANDLING DEVICE

The use of suitable and stable store, safe striking and lifting systems and devices, until table and fall safe store and staple. The products have a low friction coefficient on the surface and therefore, clamps could slide.

## 10. CLEANING OPERATION

Clean of wasted surfaces with a mild household cleaner, alcoholic solution. If oil and grease have to be replaced take a typical solvent. For TKG® PC take high care and absolutely don't contact with harsh solvent like acetone, toluene, benzene or other hydrocarbons. Stress cracks and breaks are caused and this will mean the end of the product.

## 11. STORAGE TIME

If all recommendations are careful handled, the storage time is unlimited without a retention of the properties because the materials don't contain any migrating solvents.

On machined parts should be taken care because possible discoloration on natural uncoloured material and it could be released internal stress if the production method was not really careful. Residual stress could change the geometry by war page or on the measure and tolerances. Climate could influence the measure and tolerance normally not significant. For Polyamide parts has to be taken high care because of the high water absorption.

## 11. STORAGE TIME

Any specific storage requirements concerning condition and storage time could be defined for specific applications and user, for example in aerospace industry or nuclear and defence industry.

The recommendations of this guideline only are valid by acceptance of all usual legal instructions for safety and health in the transporting and storage industry.