PLASTIC SUSCEPTIBILITY

RIGID - SHEET

	UV-RADIATION*	LIGHT*	OXYGEN / OZONE	TEMPERATURE (ACCELERATED DEGRADATION OR DISTORTION)	SETPOINT RV (HYDROLYSIS)	CHANGING RV (BLOATING AND SHRINKING)
ABS						
CA				KEEP COOL OR COLD	20-30%	
CE						
CF						
CN				KEEP COOL OR COLD	20-30%	
EP						
EVA				PREFERABLY BELOW 20 DEGREES		
HVR						
MF						
NR				RATHER ON THE COOL SIDE		
PA					50-60%	
PBAT						
PC						
PE						
PET						
PF						
PLA						
PMMA				DO NOT STORE BELOW 0 DEGREES		
PP				DO NOT STORE BELOW 0 DEGREES		
PS				DO NOT STORE BELOW 0 DEGREES		
PUR ESTER						
PUR ETHER						
PVC-P				MIGRATING PLASTICISERS... ***		
PVC-U						
SAN				DO NOT STORE BELOW 0 DEGREES		
SI						
SR**						
UF					60-70%??	
UP						

* COLOURED PLASTICS OFTEN FALL INTO THE RED CATEGORY BECAUSE OF THE SENSITIVITY OF THE DYE, UNLESS IT IS KNOWN THAT THE DYE IS NOT LIGHT-SENSITIVE, SUCH AS CARBON BLACK.

** SERVING (WITH DOUBLE BAND, =) SUCH AS ISOPRENE ARE HIGHLY SENSITIVE, OTHERWISE LOW SENSITIVE.

*** PLASTICIZERS MIGRATE MORE SLOWLY TO THE SURFACE AT COOLER TEMPERATURES.

THE PLASTICS IN RED ARE THE PROBLEM PLASTICS.
THEY MUST BE HANDLED WITH EXTRA CARE.
NOTE: DEGRADATION MAINLY TAKES PLACE ON THE SURFACE, MAKING FILMS AND THIN MATERIALS GENERALLY MORE SENSITIVE THAN THICKER ONES.

LOW SUSCEPTIBILITY
AVERAGE SUSCEPTIBILITY
HIGHLY SUSCEPTIBILITY

PLASTIC SUSCEPTIBILITY

FOAM

	UV-RADIATION*	LIGHT*	OXYGEN / OZONE	TEMPERATURE (ACCELERATED DEGRADATION OR DISTORTION)	SETPOINT RV (HYDROLYSIS)	CHANGING RV (BLOATING AND SHRINKING)
EVA				LIEFST ONDER 20 GRADEN		
MF						
NR				LIEVER AAN DE KOELE KANT		
PE						
PF						
PP				KEEP COOL		
PS (XPS, EPS)						
PUR HARD						
PUR ZACHT ESTER						
PUR ZACHT ETHER						
PVC						
SR						

* COLOURED PLASTICS OFTEN FALL INTO THE RED CATEGORY BECAUSE OF THE SENSITIVITY OF THE DYE, UNLESS IT IS KNOWN THAT THE DYE IS NOT LIGHT-SENSITIVE, SUCH AS CARBON BLACK.

THE PLASTICS IN RED ARE THE PROBLEM PLASTICS.
THEY MUST BE HANDLED WITH EXTRA CARE.
NOTE: FOAMS ARE GENERALLY MORE SENSITIVE THAN SOLID MATERIALS DUE TO THE LARGE SURFACE WHICH IS EXPOSED TO AIR.

DISCLAIMER: MANY ARTISTS EXPERIMENT WITH MATERIALS. AS A RESULT, INITIAL SUBSTANCES MAY HAVE BEEN MIXED INCORRECTLY OR DIFFERENTLY AND / OR ADDITIVES MAY HAVE BEEN ADDED THAT MAY ALTER THE PROPERTIES AND DEGRADATION PHENOMENA. PAINT, HEAT, FIRE, GLUE AND TENSION ARE AN EXAMPLE OF THESE.

LOW SUSCEPTIBILITY
AVERAGE SUSCEPTIBILITY
HIGHLY SUSCEPTIBILITY

RECOMMENDATIONS FOR PREVENTIVE PRESERVATION PLASTICS

UV-RADIATION*	LIGHT*	OXYGEN / OZONE	TEMPERATURE (ACCELERATED DEGRADATION OR DISTORTION)	SETPOINT RV (HYDROLYSIS)	CHANGING RV (BLOATING AND SHRINKING)
Remove UV-radiation completely, UV-content <10 µW / lumen	~1 Mlx.h tot 1 jwv Limit light dosage by keeping intensity low and the duration of the exposure short	Preferably store and exhibit with low-oxygen	Adjusted temperature recommended, see sensitivity table	Adjusted RV recommended, see sensitivity table	Limit fluctuations as much as possible. Setpoint ± 5%
UV content <75 µW / lumen (light bulb level); dim intensity and filter daylight and fluorescent lamp	~30 Mlx.h to 1 jwv moderate light dosage, be careful with intensity and duration of exposure	Keeping cool delays oxidation	Usual museum temperature 15-25°C	Usual museum conditions 40-60%	Limit fluctuations. Setpoint ±10% of ±5% with a seasonal fluctuation between 35-65%
Avoid extremes	~300 Mlx.h to 1 jwv Avoid bright light dosage	Usual conditions	Usual indoor temperature 10-30°C	Usual indoor conditions 30-70%	Setpoint ±20%

INFORMATION FROM THE PLASTIC SUSCEPTIBILITY TABLE IS BASED ON THE FOLLOWING SOURCES

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