

# Pomalux® Medical

Acetal (POM) Copolymer

Westlake Plastics Company

## Message:

Medical  
grade  
Pomalux  
is  
made  
from  
acetal  
copolymer  
resin  
which  
allows  
machined  
products  
the  
ability  
to  
retain  
dimensional  
integrity,  
maintain  
stability  
in  
water  
and  
most  
chemicals  
at  
elevated  
temperatures.  
Pomalux  
products  
are  
opaque  
and  
are  
available  
in  
a  
wide  
array  
of  
standard  
colors  
as  
well  
as  
on  
a  
custom  
basis.  
Recommended  
sterilization  
techniques  
for

Pomalux  
include  
EtO  
gas  
and  
steam  
autoclaving.  
Disinfectants  
and  
germicides  
generally  
have  
no  
effect  
on  
Pomalux,  
however,  
acidic  
solutions  
can  
degrade  
the  
polymer.  
Westlake  
Plastics  
Company  
manufactures  
all  
acetal  
extruded  
&  
compression  
molded  
sheets,  
plates  
and  
rods  
in  
accordance  
to  
ASTM  
D6100.  
This  
specification  
covers  
requirement  
and  
test  
methods  
for  
the  
material,  
dimensions,  
workmanship  
and  
the  
properties  
of  
extruded  
and  
compression  
molded

sheets,  
 plates  
 and  
 rods.  
 Applications Include:  
 Provisional  
 trials  
 Instrument  
 handles  
 Medical  
 device  
 components  
 Advantages of Medical Grade Pomalux:  
 Lot  
 controlled  
 and  
 traceable  
 Resin  
 complies  
 with  
 FDA  
 regulations  
 21  
 CFR  
 177.2470  
 and  
 21  
 CFR  
 178.3297  
 for  
 colorants  
 Resin  
 meets  
 the  
 requirements  
 of  
 USP  
 Class  
 VI  
 specifications  
 Stress  
 relieved  
 Laser  
 markable

General Information	
Features	Autoclave Sterilizable
	Copolymer
	Ethylene Oxide Sterilizable
	Food Contact Acceptable
	Good Chemical Resistance
	Good Dimensional Stability
	Laser Markable
	Steam Sterilizable
Uses	Handles

Medical/Healthcare Applications

Agency Ratings	FDA 21 CFR 177.2470
	FDA 21 CFR 178.3297
	USP Class VI

Appearance	Black
	Blue
	Brown
	Colors Available
	Dark Green
	Grey
	Light Blue
	Light Green
	Opaque
	Red
	Yellow

Forms	Film
	Rod
	Sheet
	Slab

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.41	g/cm <sup>3</sup>	ASTM D792
Water Absorption (24 hr)	0.22	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	78		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2620	MPa	ASTM D638
Tensile Strength (Yield)	60.7	MPa	ASTM D638
Tensile Elongation (Break)	75	%	ASTM D638
Flexural Modulus	2590	MPa	ASTM D790
Flexural Strength (5.0% Strain)	89.6	MPa	ASTM D790
Compressive Strength			ASTM D695
1% Strain	31.0	MPa	
10% Strain	110	MPa	
Shear Strength	0.0531	MPa	ASTM D732
Fatigue Limit (1.0E+7 Cycles)	27.6	MPa	ASTM D671
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	80	J/m	ASTM D256
Tensile Impact Strength	189	kJ/m <sup>2</sup>	ASTM D1822

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	158	°C	
1.8 MPa, Unannealed	110	°C	
CLTE - Flow	8.1E-5 to 1.1E-4	cm/cm/°C	ASTM D696
Thermal Conductivity	0.23	W/m/K	ASTM C177
Flammability	Nominal Value		Test Method
Flame Rating (15.2 mm)	HB		UL 94

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

