



# QUALITY CONTROL STANDARDS

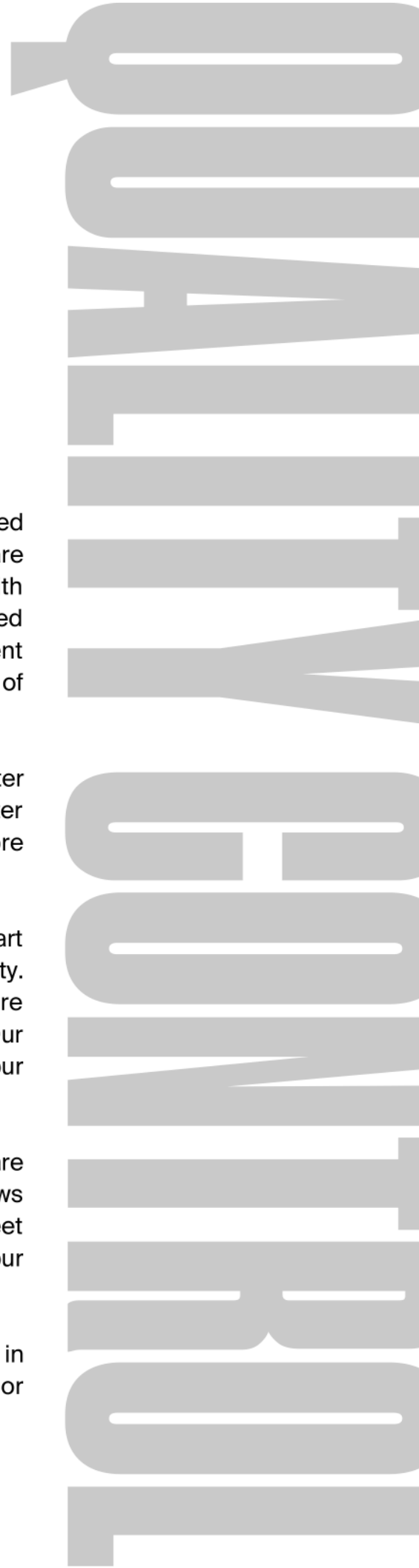
S.U.N. Engineering, Inc. constantly strives to provide the best finished urethane products in the pipeline industry. These standards are maintained through a series of quality control measures that begin with stringent specifications set for all of our suppliers and are carried through by our in-house team that makes sure each component supplied by S.U.N. Engineering, Inc. meets our own strict standards of quality and reliability.

Our material is an MDI (Methylene Diphenyl Isocyanate) polyester urethane. It is poly oil cured and never contains fillers. The durometer hardness that we manufacture range from a low of 55 Durometer shore A to a high of 95 Durometer shore A.

In our production facility quality is further controlled by state of the art controls placed on the temperature and humidity in our facility. Temperature of ovens, molds, and the production environment are maintained at a constant throughout our manufacturing process. Our urethane processing machinery is maintained constantly so that our mixtures are precise throughout the manufacturing process.

Component testing is done randomly and analytical tests are conducted by third party firms so that S.U.N. Engineering, Inc. knows the physical properties of our finished products are precise and meet the stringent standards the petroleum industry requires of our products.

S.U.N. Engineering, Inc. products are warranted against defects in material and/or workmanship for (18) months from the date of sale, or twelve (12) months from the date of installation or implementation.





**SUN**  
PIPELINE  
SOLUTIONS

SINCE 1976

## ENGINEERING DATA:

MDI POLYESTER URETHANE PROPERTIES	SOFT	HARD
SHORE HARDNESS	83/87A	92/97A
FTMS TEAR, PLI	275	400
TENSILE, PSI	7500	7500
ELONGATION, %	575	450
SET, %	10	20
100% MODULUS, PSI	725	1500
200% MODULUS, PSI	1100	2500
300% MODULUS, PSI	1500	3800
COMPRESSION DEFLECTION, PSI AT 2%	80	160
COMPRESSION DEFLECTION, PSI AT 5%	170	340
COMPRESSION DEFLECTION, PSI AT 10%	310	560
COMPRESSION DEFLECTION, PSI AT 15%	440	800
COMPRESSION DEFLECTION, PSI AT 20%	590	1000
COMPRESSION DEFLECTION, PSI AT 25% 740	740	1250
COMPRESSION DEFLECTION, PSI AT 50% 2150	2150	3500

