PRODUCT DATA SHEET FOR RIGID POLY-VINYL CHLORIDE (PVC) EXTRUSIONS

Material Characteristics, Test Standards and Typical Results of Rigid PVC Profile

S. No.	Characteristics Tested	Standard Followed	Typical Values
1.	HARDNESS Rockwell	ASTM-D2240	101^0
2.	DENSITY (Gm/cm^2)	ASTM D792	1.35
3.	TENSILE STRENGTH –at Yield 50 mm/min Mpa	ASTM-D638*	33.4
4.	TENSILE STRENGTH –at Break MPa	ASTM-D638*	50.0
5.	ELONGATION – at Yield %	ASTM-D638*	7.5
6.	FLEXURAL MODULUS GPa	ASTM-D790A	2.6
7.	MODULUS OF ELASTICITY GPa	ASTM-D638	2.4
8.	FLEXURAL YIELD STRENGTH MPa	ASTM-D790	82.1
9.	NOTCHED IZOD IMPACT STRENGTH (at 23^0 C) J/cm	ASTM-D256	5.3

KASTRADE

COMPARISON OF PROPERTIES BETWEEN

A TYPICAL RIGID PVC EXTRUSION &

POLYAMIDE 6,6 (NYLON) EXTRUSION

S.No.	Characteristics Tested	Standard Followed	Typical Values (PVC Extrusion)	Typical Values (PA Extrusion)
	MECHANICAL PROPERTIES			
1.	ELASTIC MODULUS (MPa)	ASTM-D638	3200	6800
2.	FLEXURAL MODULUS (MPa)	ASTM-D790	3100	4000
3.	TENSILE STRENGTH MPa	ASTM-D638	63	85
4	COMPRESSIVE STRENGTH (at yield) MPa	ASTM-D695	145	170
5.	FLEXURAL STRENGTH (at yield) MPa	ASTM-D790	110	190
6.	TENSILE ELONGATION at BREAK %	ASTM-D638	25	15
7.	HARDNESS Rockwell R	ASTM-D7638	110	95
	IZOD NOTCHED IMPACT (J/cm of notch)	ASTM D256A	2.3	1.2
	THERMAL PROPERTIES			
8.	MAX OPERATING TEMPERATURE (Degree Centigrade)	ASTM-D790	110	210
9.	HEAT DEFLECTION TEMPERATURE at 0.46 MPa (Degree Centigrade)	ASTM D 648	115	230
10.	COEFFICIENT OF THERMAL EXPANSION ($10^{-6}/^{0}C$)	ASTM D 696	65	45
11.	THERMAL CONDUCTIVITY (W/m-^{0}C)	ASTM C 177	0.138	
	PHYSICAL PROPERTIES			
12.	SPECIFIC GRAVITY	ASTM-D695	1.41	1.32
13.	WATER ABSORBTION (% Weight increase after 24 Hrs)	ASTM-D695	0.12	1.56