

## TECHNOLOGY DEPARTMENT PRODUCT DATA SHEET

TRADEMARK	GRADE	type
BULKSAM®	TM-30	-

	TEST METHOD	CONDITION	UNIT	Typical property value
Charpy Impact Strength,(Notched)	ISO 179	23 deg.C	kJ/m <sup>2</sup>	16
		-30 deg.C		8
Tensile Strength	ISO 527	23 deg.C	MPa	44
Tensile Modulus	130 327	23 deg.C	MPa	2300
Flexural Strength	ISO 178	23 deg.C 2mm/min	MPa	70
Flexural Modulus	150 178		MPa	2400
Rockwell Hardness	ISO 2039	23 deg.C	R-scale	113
T.D.U.L.	ISO 75	1.80MPa Flatwise	deg.C	102
Density	ISO 1183	23 deg.C	g/cm <sup>3</sup>	1.07
Melt Volume Flow Rate	ISO 1133	220deg.C	cm <sup>3</sup> /10min	3
Mold Shrinkage <sup>note)</sup>	ISO 294-4	23 deg.C	%	0.5-0.7
Coefficient of Linear Thermal Expansion	ISO 11359-2	-	cm/cm/deg. C(x10-5)	9.5
UL Flame Rating	UL 94	-	mm	1.5 HB
		-	mm	-
		-	mm	-

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note)Mold shrinkage valus are determined along the parrarel of flow direction and will depend on the molding conditions, such as holding pressure etc, so please ask our technical service in advance for applying to the mold design.

Numeric values shown in the tables are the Typical values of natural colors obtained based on predetermined testing methods and thus are not guaranteed values. Also, the numeric values for colored products may slightly vary depending upon the kind and quantity of pigment used.

Also, these values are subject to change as a result of improvement in the physical properties.

Be sure to read in advance Safety Data Sheet (SDS) to safely handle our products. You can obtain and use the SDS from our SALES DEPARTMENT Information described on these sheets was obtained based on specific conditions and thus UMG ABS, Ltd. will not guarantee that you can always obtain the same results as described here from the use of our product.

Also, UMG ABS, Ltd. is unable to guarantee the quality and safety of your products manufactured by using our products or any information proposed by our company. Your company by itself has to judge the suitability of the materials to your products.

Also pay full attention to legal restrictions and industrial properties.