Trade name: **SIMONA® PE 1000**
Date of printing: 16.04.2019

Revision: 18.08.2016

	SIMONA® PE 1000
Data sheet update	18.08.2016
Moulding compound pressed	PE,QN,33 G 000
Pressed to moulding compound standard	DIN EN ISO 17855-1
Comments	EU food compliance for colours natural, black, green and dark blue FDA food compliance for colours natural and green
Density, g/cm³, DIN EN ISO 1183	0.930
Tensile modulus of elasticity, MPa, DIN EN ISO 527	700
Water absorption, % , DIN EN ISO 62	< 0,01
Yield stress, MPa, DIN EN ISO 527	19
Elongation at yield, % , DIN EN ISO 527	11
Impact strength, kJ/m², DIN EN ISO 179	without break
Sand Slurry, %	100 ISO 15527
Dielectric strength, kV/mm , DIN IEC 60243-1	44
Ball indentation hardness, MPa, DIN EN ISO 2039-1	30
Shore hardness D (15 s), DIN EN ISO 868	60
Mean coefficient of linear thermal expansion, K^{-1} , ISO 11359-2	$1,8 \times 10^{-4}$
Thermal conductivity, W/m * K , DIN EN 12667	0.38
Vicat B, °C , DIN EN ISO 306	82
Molar mass	>= 4.000.000
Surface resistivity, Ohm , DIN IEC 60093	$\geq 10^{14}$
Temperature range, °C	-260 to +80

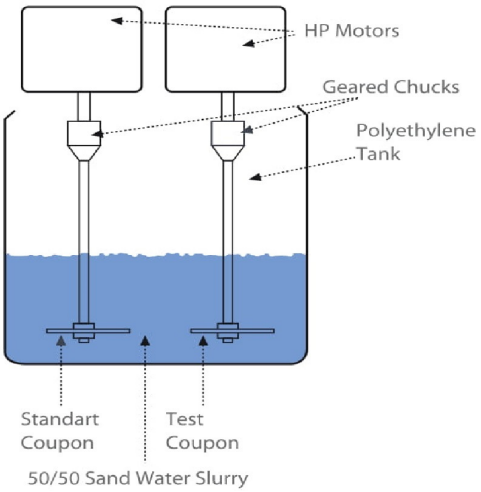
	SIMONA® PE 1000
Fire behaviour DIN 4102	DIN 4102 B2 normal flammability (self-assessment without test certificate)
Food compliance EU 10/2011	yes
Food compliance FDA	yes
Physiological safety in accordance with BfR (German Federal Institute for risk valuation)	yes

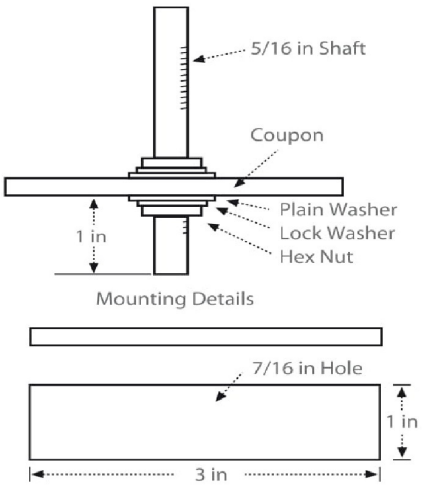
All specifications are deemed to be approximate values in respect of the specific material and may vary depending on the processing methods used. In general, data specified applies to average values measured on extruded sheets with a thickness of 4 mm. In the case of sheets manufactured by means of pressing, testing is generally performed on sheets with a thickness of 20 mm. Deviations from the values specified are possible if the sheets in this thickness are not available. In the case of backed sheets, all technical specifications relate to the non-backed base sheets. Information presented herein is not necessarily applicable to other products (e.g. pipes, solid rods) of the same material or products that have undergone downstream processing. Suitability of materials for a specific field of application must be assessed by the party responsible for processing or the end-user. All technical specifications presented herein are designed merely to provide assistance in terms of project planning. They do not constitute a guarantee of specific properties or qualities. For further information, please contact our Technical Service Centre at tsc@simona.de.

Aşınma Dayanımı / *Wear Resistance (Abrasion)* (Ek Bilgi / *Additional Information*)

Bu değer, belli süre ve devirde kum su karışımı içinde döndürülen numunenin, karbon çeliğine göre hacimsel aşınımını gösterir. Değer küçüldükçe hacim aşınımı azalır ve malzeme dayanımı artar. Mukayese listelerinde karşılaştırma örneği olan karbon çelik sayısal olarak 100 değeri ile gösterilir. 100 değerinden aşağı değerler, çelikten daha güçlü dayanımı, daha yüksek değerler zayıf dayanımı gösterir.

This property shows the dimensional wear of material in sand and slurry pool for a period. The results compare with carbon steel and calculate realtively. The calculations made by volumetric difference from the starting point. The smaller value means less wear and more strong material. The producers always listing their product compare to many other materials. The carbon steel always numbered as 100 and more stong materials took less than this.

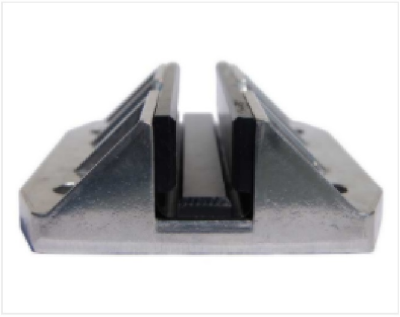




Çizim - 1) Kum, Çamur Aşınma Testi Diyagramı
Drawing - 1) Sand and Slurry Test Diagrame

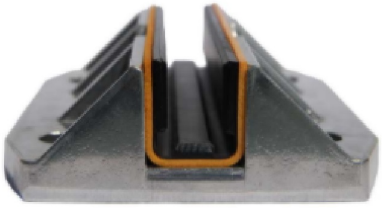
POLYETHYLENE GUIDE SHOE INSERTS

Polyethylene Guide Shor Insert PE



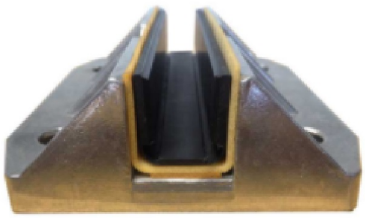
- Is a plastic with a very high hardness and low friction coefficient.
- Due to its high impact strength and low friction coefficient, is preffered especially for heavy-weight lifts, and also for normal passenger cars and counter-weights.
- Can be used without lubrication for velocities up to 2,5 m/sec
- Has an impact strength 10 times more than PU and 20 times more than PA/
- Does not stick to the rail even when inactive for a long time.
- Lasts long, does not wear out.

Polyethylene Guide Shoe Insert with Vulkocell Padding PEV

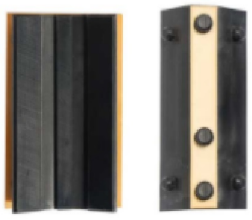


- May be used lubricated and not lubricated.
- Has an impact stregth 10 times more than PA and 20 times more than PU.
- Does not stick to the rail even when inactive for a long time.
- Lasts long, does not wear out.
- Vulkocell padding placed between the shoe and the insert provides silence in every velocity.
- Is a good schock-absorbing capacity to provide a smooth run.

Polyethylene Guide Shoe Insert with Double Vulkocell Padding PE2V



- May be used lubricated and not lubricated.
- Has an impact stregth 10 times more than PA and 20 times more than PU.
- Does not stick to the rail even when inactive for a long time.
- Lasts long, does not wear out.
- Vulkocell padding placed between the shoe and the insert provides silence in every velocity.
- Double Vulkocell padding provides extra comfort and smoothness.



REMARKS :

1-) The raw material properties used in guide shoe inserts are as shown in the supplier company catalogs on pages 1 and 2..

2-) According to ISO 15527 (thermoplastic wear resistance use sand slurry test), our material " PE 1000 " has the same wear resistance as steel. Accordingly, test data show that the product can be used lubricated as well as unlubricated, unless there are special circumstances. (it's advisory. This suggestion is to be taken as based on our best experience, but it is in no way legally binding.)