



## **GRANITE SURFACE PLATES** **PGS-PGE**



### **CONSTRUCTION FEATURES OF THE DIABASE SURFACE PLATES**

- **PGS SERIES : GRADE 00**
- **PGE SERIES : GRADE 0**

### **DESIGN CHARACTERISTICS**

DIABASE is a volcanic rock formed about 500 million years ago by the solidification of basic magma made up of calcium alkali. DIABASE has many advantages compared to other granites of different geological formation also used to produce surface plates.

DIABASE has a lamellar crystalline structure and higher density of about 17%; it is more compact and less porous and it has a specific weight of 3.018kg/dm<sup>3</sup> compared to the 2.6 kg/dm<sup>3</sup> of normal granites. It features a higher reaching 7÷8,5 on the MOHS scale.

As a result of these particular characteristics, it has a rigidity three times higher than other granites, which means that the flexion that the plate undergoes under the action of even high loads is minimum. The low porosity of DIABASE is a further practical advantage because the plate does not absorb surface pastes and other products that are used; therefore there is no formation of halos, stains or sticky film, which prevent the instruments or workpieces from sliding. In addition, humidity is not absorbed which, whilst it does not damage the plate, it may oxidize the tools placed on its surface. Lastly the great hardness guarantees maximum resistance to wear and durable flatness of the plate. Standard DIN 876 part 1 establishes the flatness tolerances as per table.

### **Applications**

For precision measuring and marking both in metrological rooms and workshops.



TECHNICAL CHARACTERISTICS	
Hardness	7÷8,5 MOHS scale 60 -70 HRC
Specific weight	3 kg/dm <sup>3</sup>
Porosity	0,76%
Resistance to compression	1.600 ÷ 2.400 kg/cm <sup>2</sup>
Resistance to flexion	100 ÷ 175 kg/cm <sup>2</sup>
Coefficient of linear thermal expansion	(5 ÷ 6,7) x 10 <sup>-6</sup> °C <sup>-1</sup>
Coefficient of thermal conductivity	2,5 ÷ 3,4 kcal (m.h. °C)

TECHNICAL CHARACTERISTICS				
Code No.	µm	Dimensions (mm)	Weight (kg)	Grade
PGS01	3	300 x 200 x 50	9,6	00
PGS02	3	300 x 300 x 70	20,1	00
PGS03	3	400 x 250 x 70	22,4	00
PGS04	3	400 x 400 x 70	35,8	00
PGS05	4	630 x 400 x 100	80	00
PGS06	4	630 x 630 x 100	127	00
PGS07	4	800 x 500 x 100	128	00
PGS08	4	1000 x 630 x 150	300	00
PGS09	4	1000 x 750 x 150	339	00
PGS10	4	1000 x 1000 x 150	453	00
PGS11	6	1600 x 1000 x 200	965	00
PGS12	6	2000 x 1000 x 200	1207	00
PGS13	5	1200 x 800 x 150	434	00
Code No.	µm	Dimensions (mm)	Weight (kg)	Grade
PGE01	6	300 x 200 x 50	9,6	0
PGE02	6	300 x 300 x 70	20,1	0
PGE03	6	400 x 250 x 70	22,4	0
PGE04	6	400 x 400 x 70	35,8	0
PGE05	7	630 x 400 x 100	80	0
PGE06	7	630 x 630 x 100	127	0
PGE07	8	800 x 500 x 100	128	0
PGE08	8	1000 x 630 x 150	300	0
PGE09	8	1000 x 750 x 150	339	0
PGE10	8	1000 x 1000 x 150	453	0
PGE11	11	1600 x 1000 x 200	965	0
PGE12	12	2000 x 1000 x 200	1207	0
PGE13	9	1200 x 800 x 150	434	0

**Other sizes available up on request**