

POLYSTONE® PG100 (Pipe Grade)

THE MATERIAL OF CHOICE FOR CHEMICAL TANK BUILDING

Manufactured by Röchling, the No. 1 manufacturer in the world in Polyolefins, Polystone® PG100 exhibits outstanding properties that deliver tangible benefits to the fabrication industry. Polystone® PG100 (Pipe Grade) is approved for chemical engineering and tank building and meet the strict requirements set for pipe-grade PE. Offering peace of mind in terms of performance and safety. Polystone® PG100 is the logical choice.

REDUCTION IN OVERALL TANK MANUFACTURING COSTS



ROUND PG100 TANKS PROVIDE EXCELLENT STRENGTH, RIGIDITY AND UNSURPASSED CHEMICAL PERFORMANCE

COMPLIANT WITH THE DVS STANDARD AND

RITA (RÖCHLING'S INTEGRATED
TANK BUILDING ASSISTANT)



WHY POLYSTONE® PG 100 (Pipe Grade)

- 100% weld integrity with PE100 pipe
- Superior, long term material strength.
- Exceptional weld strength.
- Degauge material from PE80 and standard HDPE
- Construction of higher tanks.
- Superior acid resistance
- Improved environmental stress cracking resistance
 - up to 100 times better than standard HDPE
- Shorter welding times and easier bending of thinner sheets.
- Weatherproof with exceptional UV stability.

IMPROVED HOOP STRENGTH

• PE 80

- Service life: **50 years**
- Temperature: **20 °C**



8 MPa

• POLYSTONE® PG100

- Service life: **50 years**
- Temperature: **20 °C**



10 MPa

IMPROVED CREEP MODULUS VALUE

• PE 80

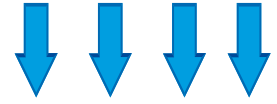
- Service life: **1 year**
- Temperature: **50 °C**
- Applied stress value: **0,5 MPa**



180 MPa

• POLYSTONE® PG100

- Service life: **1 year**
- Temperature: **50 °C**
- Applied stress value: **0,5 MPa**



205 MPa

UNSURPASSED...Quality, reliability, availability.



DOTMAR... your partner in performance engineering plastics.

REDUCED WALL THICKNESSES:

Exemplary wall thickness calculation (Min. thickness of cylinder wall)

- Internal Diameter: 4000mm
- Internal Hydrostatic pressure: 0,06 MPa
- Service Life: 25 years
- Service Temperature: 30 °C

• PE 80

42mm

• POLYSTONE® PG100

33mm



DELIVERY PROGRAMME

POLYSTONE PG100 Sheet - Black

Size: 4000x2000

Thickness: 6mm, 10mm, 12mm

15mm, 20mm, 25mm, 30mm

10kg PE100 weld rod rolls



PE Physical Properties

Specific Gravity Units g/cm ³	0.96
Minimum / Maximum Service temperature in Air Unit °C	-50 to +80
Tensile Strength Yield MPA	>20
Tensile Strength Break MPA	>40
Impact Resistance	No Break
DIN 53505 Notched Impact Strength Units MJ/mm ²	
Co-efficient of Thermal Expansion Units mm/(mmK) x 10 ⁻⁶	180
Dielectric Strength	45
DIN 53481 Units KV/mm (measured on a 0.2mm thick sheet)	
Surface Resistivity Units Ohms	>1x10 ¹⁴
FDA Approved	Yes