

P275NH

STAHL FÜR DRUCKBEHÄLTER

NORM	EN10028-3																																																													
IDENTIFIKATIONSNUMMER	1.0487																																																													
KLASSIFIZIERUNG	-																																																													
TYPLOGIE	-																																																													
WALZZUSTAND	Genormt																																																													
KURZBESCHREIBUNG	Hochfester Feinkornbaustahl für Druckbehälter. Gute Schweißbeignung und gute Warm- und Kaltumformbarkeit im genormten Walzzustand.																																																													
ANWENDUNGSBEREICHE	Druckbehälter, Kessel, Heizkessel, Druckrohre, Wärmetauscher und Kompressoren.																																																													
STANDARDABMESSUNGEN	<table border="1"> <thead> <tr> <th>P275NH</th> <th>1500</th> <th>2000</th> </tr> </thead> <tbody> <tr><td>3</td><td>•</td><td>•</td></tr> <tr><td>4</td><td>•</td><td>•</td></tr> <tr><td>5</td><td>•</td><td>•</td></tr> <tr><td>6</td><td>•</td><td>•</td></tr> <tr><td>7</td><td></td><td>•</td></tr> <tr><td>8</td><td>•</td><td>•</td></tr> <tr><td>10</td><td>•</td><td>•</td></tr> <tr><td>12</td><td>•</td><td>•</td></tr> </tbody> </table>			P275NH	1500	2000	3	•	•	4	•	•	5	•	•	6	•	•	7		•	8	•	•	10	•	•	12	•	•																																
P275NH	1500	2000																																																												
3	•	•																																																												
4	•	•																																																												
5	•	•																																																												
6	•	•																																																												
7		•																																																												
8	•	•																																																												
10	•	•																																																												
12	•	•																																																												
CHEM. ZUSAMMENSETZUNG	Standard nach Norm																																																													
	<table border="1"> <thead> <tr> <th>C (%)</th> <th>Si (%)</th> <th>Mn (%)</th> <th>P (%)</th> <th>S (%)</th> <th>Al (%)</th> <th>Nb (%)</th> <th>Ti (%)</th> <th>V (%)</th> <th>Mo (%)</th> <th>Cu (%)</th> </tr> </thead> <tbody> <tr> <td>≤ 0.16</td> <td>≤ 0.40</td> <td>0.80-1.50</td> <td>≤ 0.025</td> <td>≤ 0.010</td> <td>≥ 0.020</td> <td>≤ 0.05</td> <td>≤ 0.03</td> <td>≤ 0.05</td> <td>≤ 0.08</td> <td>≤ 0.30</td> </tr> </tbody> </table>										C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)	≤ 0.16	≤ 0.40	0.80-1.50	≤ 0.025	≤ 0.010	≥ 0.020	≤ 0.05	≤ 0.03	≤ 0.05	≤ 0.08	≤ 0.30																														
C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)																																																				
≤ 0.16	≤ 0.40	0.80-1.50	≤ 0.025	≤ 0.010	≥ 0.020	≤ 0.05	≤ 0.03	≤ 0.05	≤ 0.08	≤ 0.30																																																				
	<table border="1"> <thead> <tr> <th>Cr (%)</th> <th>Ni (%)</th> <th>N (%)</th> <th>B (%)</th> <th>Nb+Ti+V (%)</th> <th>Cr+Mo+Ni (%)</th> <th>Ni+Cr+Cu+Mo (%)</th> <th>C.E.V. (%)</th> </tr> </thead> <tbody> <tr> <td>≤ 0.30</td> <td>≤ 0.50</td> <td>≤ 0.012</td> <td></td> <td>≤ 0.05</td> <td></td> <td></td> <td>≤ 0.40*</td> </tr> </tbody> </table>										Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)	≤ 0.30	≤ 0.50	≤ 0.012		≤ 0.05			≤ 0.40*																																				
Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)																																																							
≤ 0.30	≤ 0.50	≤ 0.012		≤ 0.05			≤ 0.40*																																																							
	<p>* = pour des épaisseurs en mm ≤ 60 C.E.V. (%) = C+(Mn/6)+[(Cr+Mo+V)/5]+[(Ni+Cu)/15]</p>																																																													
MECH. EIGENSCHAFTEN	Nach UNI EN 10028																																																													
	<table border="1"> <thead> <tr> <th>Mechanische Eigenschaften</th> <th>Richtung</th> <th>Stärken</th> <th>Werte</th> </tr> </thead> <tbody> <tr> <td rowspan="2">R_e (MPa)</td> <td>T</td> <td>≤ 16</td> <td>≥ 275</td> </tr> <tr> <td>T</td> <td>> 16 ≤ 40</td> <td>≥ 265</td> </tr> <tr> <td rowspan="2">R_m (MPa)</td> <td>T</td> <td>≤ 16</td> <td>390-510</td> </tr> <tr> <td>T</td> <td>> 16 ≤ 40</td> <td>390-510</td> </tr> <tr> <td>A₉₀ (%)</td> <td>T</td> <td></td> <td>≥ 19</td> </tr> <tr> <td>A₅ (%)</td> <td>T</td> <td></td> <td>≥ 24</td> </tr> <tr> <td>Biegeversuch 180°</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="2">KV 20°C (J)</td> <td>L</td> <td>≤ 250</td> <td>≥ 75*</td> </tr> <tr> <td>T</td> <td>≤ 250</td> <td>≥ 50*</td> </tr> <tr> <td rowspan="2">KV 0°C (J)</td> <td>L</td> <td>≤ 250</td> <td>≥ 65*</td> </tr> <tr> <td>T</td> <td>≤ 250</td> <td>≥ 40*</td> </tr> <tr> <td rowspan="2">KV -20°C (J)</td> <td>L</td> <td>≤ 250</td> <td>≥ 45*</td> </tr> <tr> <td>T</td> <td>≤ 250</td> <td>≥ 30*</td> </tr> <tr> <td>KV -40°C (J)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>KV -50°C (J)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Mechanische Eigenschaften	Richtung	Stärken	Werte	R _e (MPa)	T	≤ 16	≥ 275	T	> 16 ≤ 40	≥ 265	R _m (MPa)	T	≤ 16	390-510	T	> 16 ≤ 40	390-510	A ₉₀ (%)	T		≥ 19	A ₅ (%)	T		≥ 24	Biegeversuch 180°				KV 20°C (J)	L	≤ 250	≥ 75*	T	≤ 250	≥ 50*	KV 0°C (J)	L	≤ 250	≥ 65*	T	≤ 250	≥ 40*	KV -20°C (J)	L	≤ 250	≥ 45*	T	≤ 250	≥ 30*	KV -40°C (J)				KV -50°C (J)			
Mechanische Eigenschaften	Richtung	Stärken	Werte																																																											
R _e (MPa)	T	≤ 16	≥ 275																																																											
	T	> 16 ≤ 40	≥ 265																																																											
R _m (MPa)	T	≤ 16	390-510																																																											
	T	> 16 ≤ 40	390-510																																																											
A ₉₀ (%)	T		≥ 19																																																											
A ₅ (%)	T		≥ 24																																																											
Biegeversuch 180°																																																														
KV 20°C (J)	L	≤ 250	≥ 75*																																																											
	T	≤ 250	≥ 50*																																																											
KV 0°C (J)	L	≤ 250	≥ 65*																																																											
	T	≤ 250	≥ 40*																																																											
KV -20°C (J)	L	≤ 250	≥ 45*																																																											
	T	≤ 250	≥ 30*																																																											
KV -40°C (J)																																																														
KV -50°C (J)																																																														
	<p>* = Standardoption t = Stärke des Biegeprüfkörpers in mm ADW1-Zertifikat auf Anfrage</p>																																																													
	<p>L = Tensile testing carried out on longitudinal test pieces T = Biegeversuchs carried out on cross-cut test pieces</p>																																																													
TOLERANZEN	Maß- und Normtoleranzen		UNI EN 10051																																																											
	Oberflächenbeschaffenheit		UNI EN 10163-2																																																											
ZERTIFIZIERUNGEN	EN 10204-3.1	PED/ 97/23/EC	AD2000W1																																																											