

QuickLOAD® V.3.6 © Copyright 1987-2010 - H.Broemel, Babenhausen, Germany

WARNING: Since we have no control over equipment or data which may be used with this program, no responsibility is implied or assumed for results obtained through its use. Input data and results may be incorrect or wrong. Therefore the use of this data for loading ammunition can cause serious injury to personnel and material. The computer-results had to be checked against data available in current loading manuals.

LOT-TO-LOT VARIATIONS OF POWDERS, PRIMER SUBSTITUTION AND COMPONENT CHANGE OFTEN RAISE PRESSURES TO UNSAFE LEVELS. THE USER MUST ASSUME THE ENTIRE RISK OF USING THIS DATA FOR LOADING PURPOSES.

QuickLOAD® V.3.6.02 #130542, © Copyright 1987-2010 - H.Broemel, Babenhausen, Germany

User Data:	Date:8-Apr-2015	Time:22:53:22	File: xpert 6.5 x 284 norma 98gr.dat	
Cartridge / Caliber	6.5-284 Norma	Bullet	.264, 98, XPERT	
Maximum Average Pressure, allowed	59465 psi.	4100 bar (Piezo CIP)	with flatbase	
Groove Caliber	0.264 in.	6.71 mm	Bullet Weight	98.0 gr. 6.35 gm
Case Capacity, overflow	66.0 gr. H2O	4.285 cm ³	Bullet Length	1.240 in. 31.5 mm
Case Length	2.170 in.	55.12 mm	Bullet Seating Depth	0.536 in. 13.62 mm
Cartridge O.A. Length	2.874 in.	73.0 mm	Barrel/Tube Length	24.0 in. 609.6 mm
Shot Start / Init Pressure	3625 psi.	249.94 bar	Cross Section Area of Bore	0.05366 in. ² 0.3462 cm ²
Propellant type	Somchem S365			
Charge Weight	51.0 gr.	3.305 gm	Load Density	219.8 gr./in. ³ 0.869 gm/cm ³
Heat of Explosion, Potential	238.8 J/gr.	3685 J/gm	Energy Density of Charge	52471 J/in. ³ 3202 J/cm ³
Propellant Solid Density	404.63 gr./in. ³	1.6 gm/cm ³	Used Ratio of Specific Heats cp/cv	1.239
Burning Rate Factor Ba	0.44 1/s		Weighting Factor	0.5
Burning Function Limit Z1	0.605		Prog.-/ Degressivity Factor a0	1.715
Factor b	2.271		Bulk Density	231.4 gr./in. ³ 0.915 gm/cm ³

Calculated and Estimated Data:

Bullet Shank Seating Depth	0.536 in.	13.62 mm	Capacity Displaced by Seated Bullet	0.0294 in. ³	0.482 cm ³
Useable Case Capacity	0.2321 in. ³	3.803 cm ³	Bullet Travel at Muzzle Exit	22.37 in.	568.1 mm
Loading Ratio("Density") / Filling	95.0 %		Charge Fraction Burnt at Shot Start	1.49 %	

Predicted Data:

Maximum Chamber Pressure	45353 psi.	3127 bar	Bullet Travel at Pmax	3.08 in.	78.2 mm
at Muzzle Exit:					
Bullet Velocity	3174 fps.	967.4 m/s	Pressure at Muzzle	10815 psi.	746 bar
Bullet Energy	2192 ft.lbs.	2972 Joule	Bullet Barrel Time	1.189 ms	
Propellant Burnt	99.8 %		Ballistic Efficiency	24.4 %	

Check Loading Manuals for Safe Minimum Charge Weight to Avoid Hazardous Ignition Conditions like Secondary Explosion Effects !
 Real maximum (peak) of pressure is reached while bullet moves within barrel.
 End of combustion occurs after the bullet's base passes muzzle.

