

The Rex data on this page was developed in the HP White Laboratories (H.P. White Laboratories * 314 Scarboro Rd. * Street, MD 21154) under controlled conditions. No data shown in the ensuing lead data section should be used with steel or Bismuth shot. NEVER substitute components when loading shotshells using this data. Substitution of different components could cause excessive or dangerous pressures, which could damage or destroy your firearm or cause serious person injury or even death to the user and/or bystanders.

Graf & Sons, Inc. has no control over variations in components, reloading tools or reloader's procedures. The individual is solely responsible for any changes in ballistics that may occur using this data.



Produced by NITROKEMIA Hungary

9mm

Bullet	Primer	Powder	Grain	Velocity	CUP
115 gr FMJ	RM 1 1/2	Rex II	4.3	1103	31120
125 gr Lead	RM 1 1/2	Rex II	4.3	1059	31670

38 Super

Bullet	Primer	Powder	Grain	Velocity	CUP
115 gr JHP	CCI 500	Rex II	5.6	1169	31380
130 gr FMJ	CCI 500	Rex II	4.6	1043	30680
147 gr JHP	CCI 500	Rex II	4.0	910	30250
115 gr JHP	CCI 500	Rex III	6.3	1223	32300
130 gr FMJ	CCI 500	Rex III	5.6	1095	30660
147 gr JHP	CCI 500	Rex III	4.8	976	31800

38 Spl + P

Bullet	Primer	Powder	Grain	Velocity	CUP
125 gr JHP	WINWSP	Rex II	5.0	1043	19400
148 gr Lead WC	WINWSP	Rex II	4.1	1021	19990
158 gr Lead SWC	WINWSP	Rex II	4.0	923	18660

40 S & W

Bullet	Primer	Powder	Grain	Velocity	CUP
155 gr JHP	WINWSP	Rex II	5.9	1075	34570
175 gr Lead	WINWSP	Rex II	4.2	930	32970

45 ACP

Bullet	Primer	Powder	Grain	Velocity	CUP
185 gr JHP	WINWLP	Rex II	5.7	901	17900
200 gr Lead SWC	WINWLP	Rex II	5.3	949	17440
230 gr Lead RN	WINWLP	Rex II	4.8	857	17780

Bushings Recommended by Graf & Sons

Mec	Rex 0	Rex I	Rex II	Rex III
30	15	16.4		
31	15.3	16.6		
32	16.1	17.6	17.8	
33	16.6	18.2	18.4	
34	17.2	18.8	19.0	
35	17.8	19.4	20.1	
36	18.3	19.8	20.4	
37			21.3	21
38			22.3	22.3
38A			23.3	23.3
39			23.9	24.4
39A				25.3

Hornady	Rex 0	Rex I	Rex II	Rex III
432		16		
444	15.3	16.6		
450	15.9	17.2	17.6	
453	16.1	17.6	17.8	
456	16.3	17.8		
459	16.5	18.1	18.3	
462	16.8	18.3	18.5	
465	17.0	18.6	18.8	
468	17.2	18.8	19.0	
471	17.5	19.1	19.4	
474	17.9	19.3	20.0	
480		19.8	20.2	20.6
486			20.5	20.8
498			22.1	22.1
510				23.5
516				24.5

12 ga., 2 3/4" Winchester Compression-Formed AA Type Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps		1200 fps		1250 fps		1300 fps	
				grs	psi	grs	psi	grs	psi	grs	psi
7/8 oz	Rex 0	CH209	CB4100			15.7	7160	17.0	8070	18.1	9050
7/8 oz	Rex I	WIN209	CB4100			16.4	6990	17.7	7620	18.6	8270
7/8 oz	Rex I	CH209	CB4100			16.8	6700	17.8	7360	18.8	8040
1 oz	Rex 0	CH209	CB4100			17	9840				
1 oz	Rex I	WIN209	CB1100	16.4	8180	17.4	8640	18.6	9770	19.8	10580
1 oz	Rex I	CH209	CB1100	16.4	7930	17.6	8480	18.6	9590	19.8	10510
1 oz	Rex II	CH209	CB1100			20.0	7230	21.0	7850	22.7	7940
1 oz	Rex II	CH209	CB1118			21	7740	22.5	7810		
1 oz	Rex II	CH209	CB4100			20.0	7350	21.0	8070	22.3	8460
1 1/8 oz	Rex I	CH209	CB4118	18	9650	19	10540				
1 1/8 oz	Rex I	WIN209	CB1118	16.8	10160	18.5	11340				
1 1/8 oz	Rex I	CH209	CB1118	16.8	10410						
1 1/8 oz	Rex II	WIN209	CB1118	18.5	8550	20.3	9530	21.3	10460	22.8	11150

1 1/8 oz	Rex II	CH209	CB1118	19.0	8170	20.4	9060	21.3	9900	23.0	10440
1 1/8 oz	Rex II	CH209	WJ	18.7	8110	20.2	8920				
1 1/8 oz	Rex II	CH209	CB1114	20.5	7910	22.2	8500				
1 1/8 oz	Rex III	WIN209	CB1118			22.1	7850	23.5	9130	24.5	9790
1 1/8 oz	Rex III	CH209	CB1118			22.2	7590	23.7	8970	24.7	9650
1 1/4 oz	Rex III	WIN209	AA12F114			22.2	10270				
1 1/4 oz	Rex III	CH209	AA12F114			22.5	10240	24.2	11390		
20 ga., 2 3/4" Winchester Compression-Formed AA Type Shells											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps		1200 fps		1250 fps		1300 fps	
				grs	psi	grs	psi	grs	psi	grs	psi
7/8 oz	Rex III	CH209	AA20	15.3	11430						

12 ga., 2 3/4" Federal Gold Medal Plastic Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps				1200 fps			
				grs	psi	grs	psi	grs	psi	grs	psi
1 oz	Rex I	FD209	CB2100					17.7		9521	
1 1/8 oz	Rex II	CH209	CB2118	20.0		7556		21.2		8008	
1 1/8 oz	Rex II	FD209	CB2118	19.1		8690		21.0		9469	
12 ga., 2 3/4" Federal Top Gun Plastic Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps				1200 fps			
				grs	psi	grs	psi	grs	psi	grs	psi
1 oz	Rex I	CH209	GU1225					19.5		8460	
1 1/8 oz	Rex I	CH209	GU1222	19.0		9470		20.5		10450	
12 ga., 2 3/4" Federal Gold Medal Paper Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps				1200 fps			
				grs	psi	grs	psi	grs	psi	grs	psi
1 1/8 oz	Rex II	FD209	CB3118AR	19.5		8140		21.3		9137	
12 ga., 2 3/4" Cheddite/Challenger Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							

				1145 fps		1200 fps		1250 fps	
				grs	psi	grs	psi	grs	psi
1 oz	Rex I	CH209	GU1225			19.5	8250	21	9440
1 oz	Rex I	CH209	CB4100			19.1	7062		
1 1/8 oz	Rex I	CH209	GU1222	18.5	8700	20	9790		
1 1/8 oz	Rex II	CH209	CB3118AR	20.4	6879	22.2	7652		
1 1/8 oz	Rex II	CH209	GU1222	21	7350	23	8080		

12 ga., 2 3/4" Remington STS Hulls

Shot	Powder	Primer	Wad	Charge/Pressure			
				1145 fps		1200 fps	
				grs	psi	grs	psi
1 oz	Rex I	CH209	CB1100			18.5	8480
1 oz	Rex I	RM209	CB1100			17.5	8516
1 1/8 oz	Rex I	CH209	CB1118	18	9810	19	10850
1 1/8 oz	Rex II	RM209	CB3118A	19.5	7868	21.0	8984
1 1/8 oz	Rex II	CH209	CB3118A	19.5	8450	21.0	9330



Cheddite/Challenger Hulls

410 ga., 2 1/2"							
Cheddite/Challenger Plastic Hulls							
Shot	Powder	Primer	Wad	Charge/Pressure			
				1200 fps		1225 fps	
				grs	psi	grs	psi
1/2 oz	Lil' Gun	CH209	Fed 410SC	13.0	11100	13.3	12000
1/2 oz	Lil' Gun	CH209	Rem SP410	12.8	11400	13.1	11800
1/2 oz	Lil' Gun	FC616	Fed 410SC	13.0	11600	13.3	11900
1/2 oz	Lil' Gun	FC616	Rem SP410	12.7	11200	13.0	12300
1/2 oz	H110	CH209	Fed 410SC	15.7	8700	16.0	9900
1/2 oz	H110	CH209	Rem SP410	15.5	8800	15.7	9800

28 ga., 2 3/4"									
Cheddite/Challenger Plastic Hulls									
Shot	Powder	Primer	Wad	Charge/Pressure					
				1200 fps		1225 fps		1250 fps	
				grs	psi	grs	psi	grs	psi
3/4 oz	Universal	CH209	Fed 28S1	14.5	11000	14.9	11800		
3/4 oz	Universal	CH209	Rem PT28	14.5	10700	15.2	11700	15.4	12300
3/4 oz	Universal	FC616	Fed 28S1	14.2	11300	14.4	12400		
3/4 oz	Universal	FC616	Rem PT28	14.2	11400	14.5	12400		
13/16 oz	Universal	CH209	Fed 28S1	14.5	12400				
13/16 oz	Universal	CH209	Rem PT28	14.7	12500				

20 ga., 2 3/4"									
Cheddite/Challenger Plastic Hulls									
Shot	Powder	Primer	Wad	Charge/Pressure					
				1200 fps		1225 fps		1250 fps	
				grs	psi	grs	psi	grs	psi
7/8 oz	Universal	CH209	Fed 20S1	17.0	8900	17.5	9600	18.0	10000
7/8 oz	Universal	CH209	G/BP20	18.0	9100	18.3	9700	18.6	9900
7/8 oz	Universal	FC616	Fed 20SI	16.7	9200	17.1	9700	17.5	10300
7/8 oz	Universal	FC616	G/BP20	17.0	9500	17.5	9700	18.0	10200

16 ga., 2 3/4" Cheddite Plastic Hulls									
Shot	Powder	Primer	Wad	Charge/Pressure					
				1165 fps		1220 fps		1275 fps	
				grs	psi	grs	psi	grs	psi
1 oz	Universal	CH209	G/BP16	20.5	7500	21.7	8500	23.0	9200
1 oz	Universal	CH209	WAA16	19.9	7100	21.2	8300	22.2	9000
1 oz	Universal	FC616	G/BP16	20.5	8000	21.5	8800	22.5	10000
1 oz	Universal	FC616	WAA16	19.5	8000	20.5	8900	22.0	10300

12 ga., 2 3/4" Cheddite/Challenger Plastic Hulls											
Shot	Powder	Primer	Wad	Charge/Pressure							
				1145 fps		1200 fps		1260 fps		1300 fps	
				grs	psi	grs	psi	grs	psi	grs	psi
1 oz	Am. Select	CH209	FD12SO			20.2	6150	21.5	6990	22.5	7600
1 oz	Red Dot	CH209	FD12SO			19.0	7780	20.3	8740	21.1	9230
1 oz	Green Dot	CH209	FD12SO			21.4	6870	23.0	7760	24.0	8240
1 1/8 oz	Am. Select	CH209	FD12S3	18.8	7570	20.6	8810				
1 1/8 oz	Red Dot	CH209	FD12S3	18.0	8990	19.4	9610				
1 1/8 oz	Green Dot	CH209	FD12S3	20.0	7480	21.7	8260				
1 1/8 oz	Am. Select	CH209	RXP12	19.8	7200	20.5	7580				
1 1/8 oz	Red Dot	CH209	RXP12	18.3	8440	19.3	8720				
1 1/8 oz	Green Dot	CH209	RXP12	20.5	7070	22.2	7810				
				1090 fps		1145 fps		1200 fps		1255 fps	
				grs	psi	grs	psi	grs	psi	grs	psi
1 1/8 oz	TiteWad	CH209	FD12S3	16.5	7400	17.0	9000	18.0	10100		
1 1/8 oz	TiteWad	CH209	FCTL1	16.0	9100	17.0	10400	18.0	11400		
1 1/8 oz	TiteWad	CH209	RMFIG8			16.5	8800	18.0	10400		
1 1/8 oz	TiteWad	CH209	WAA12SL	16.5	7300	17.0	8500	18.0	9800		

1 1/8 oz	Clays	CH209	FD12S3	16.3	7700	17.5	8500	18.7	9700	20.5	11400
1 1/8 oz	Clays	CH209	WAA12	16.3	7700	17.3	8500	18.5	10000	20.0	11500
1 1/8 oz	Clays	FC616	FCTL1	16.0	7500	17.0	8000	19.0	11300		
1 1/8 oz	Clays	FD209A	FD12S3	16.0	7000	16.5	7800	18.5	10400		
1 1/8 oz	Clays	FD209A	FCTL1	16.5	6900	17.0	8400	19.0	10300		
1 1/8 oz	Clays	FC616	ACTIV TG-30	16.5	6500	17.0	7300	18.5	9500		
1 1/8 oz	Clays	WIN209	FD12S3	16.5	6500	17.0	7700	19.0	10300		
1 1/8 oz	International	CH209	FD12S3	19.5	7200	20.0	8400	21.0	8500		
1 1/8 oz	International	CH209	WAA12	19.0	7300	19.5	7800	20.5	8400	21.5	9900
1 1/8 oz	International	FC616	FCTL1			19.0	7200	20.5	8800	22.0	10000
1 1/8 oz	International	FD209A	FD12S3			19.0	7000	20.0	8900	21.8	10700
1 1/8 oz	International	FD209A	FCTL1	18.0	6900	18.5	7800	20.0	9200	21.0	10500
1 1/8 oz	International	FC616	ACTIV TG-30			19.5	6700	21.5	7700	22.5	9500
1 1/8 oz	International	WIN209	FD12S3			19.5	6400	21.0	7900	22.0	9900

12 ga., 2 3/4" Cheddite/Challenger Plastic Hulls							
Shot	Powder	Primer	Wad	Charge/Pressure			
				1220 fps		1275 fps	
				grs	psi	grs	psi
1 1/4 oz	Universal	FC616	WAA12114	24.5	9600	25.5	10300
1 1/4 oz	Universal	WIN209	FD12S4	24.5	10000	25.5	10500
				1330 fps			
1 1/4 oz	HS-6	FD209A	FCTL1	34.5	10500		
1 1/4 oz.	HS-6	WIN209	RMFIG8	35.0	9400		
				1260 fps			
1 1/2 oz	HS-7	FC616	WAA12R	36.0	10,600		
1 1/2 oz	HS-7	WIN209	WAA12R	36.0	10,600		

After choosing an appropriate load, be sure to weigh actual charges thrown by the bushing or charge bar. No bushing or charge bar throws the exact charge as listed in the tables. Such changes occur because of small tolerances in the bushing sizes, tolerances in bulk, density of powder and the way each loader is mounted and operated. It is important to verify these weights for safety and to insure getting the type load you want.