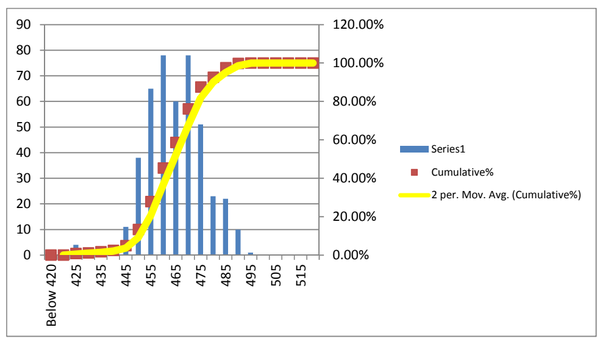
Campaign Length: 28.09.16 to 29.09.16
Total Production: 2571.351 MT
Billet Rolled: BIS-202 & BIS-210
Product: G 420-DWR (4x12 mm)

YIELD STRENGTH

Mean	464.498
Median	465
Mode	470
Std. Dev.	11.745
Min	425
Max	495
Count	448

Bin	Frequency	%	Cumulative%
Below 420	0	0.00%	0.00%
420	0	0.00%	0.00%
425	4	0.89%	0.89%
430	1	0.22%	1.12%
435	3	0.67%	1.79%
440	3	0.67%	2.46%
445	11	2.46%	4.91%
450	38	8.48%	13.39%
455	65	14.51%	27.90%
460	78	17.41%	45.31%
465	60	13.39%	58.71%
470	78	17.41%	76.12%
475	51	11.38%	87.50%
480	23	5.13%	92.63%
485	22	4.91%	97.54%
490	10	2.23%	99.78%
495	1	0.22%	100.00%
500	0	0.00%	100.00%
505	0	0.00%	100.00%
510	0	0.00%	100.00%
515	0	0.00%	100.00%
520 & Above	0	0.00%	100.00%
Total	448		

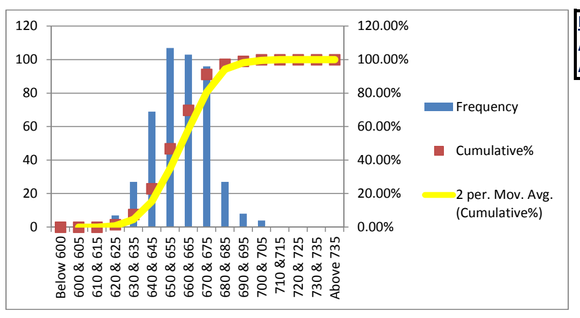


MINIMUM REQUIREMENTS
As per ISO 6935-2: 420 Mpa
As per ASTM A-615: 420 Mpa

ULTIMATE STRENGTH

Mean	658.828
Median	660
Mode	660
Std. Dev.	14.79
Min	625
Max	705
Count	448

Bin	Frequency	%	Cumulative%
Below 600	0	0.00%	0.00%
600 & 605	0	0.00%	0.00%
610 & 615	0	0.00%	0.00%
620 & 625	7	1.56%	1.56%
630 & 635	27	6.03%	7.59%
640 & 645	69	15.40%	22.99%
650 & 655	107	23.88%	46.88%
660 & 665	103	22.99%	69.87%
670 & 675	96	21.43%	91.29%
680 & 685	27	6.03%	97.32%
690 & 695	8	1.79%	99.11%
700 & 705	4	0.89%	100.00%
710 &715	0	0.00%	100.00%
720 & 725	0	0.00%	100.00%
730 & 735	0	0.00%	100.00%
Above 735	0	0.00%	100.00%
Total	448		

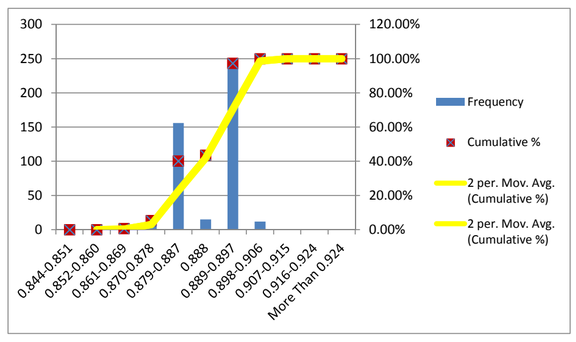


MINIMUM REQUIREMENTS
As per ISO 6935-2: 525 Mpa
As per ASTM A-615: 620 Mpa

UNIT WEIGHT

Mean	0.889
Median	0.89
Mode	0.890
Std. Dev.	0.006
Min	0.865
Max	0.904
Count	448

	Bin	Frequency	%	Cumulative %
	Less Than 0.844	0	0.00%	0.00%
-5%	0.844-0.851	0	0.00%	0.00%
-4%	0.852-0.860	0	0.00%	0.00%
-3%	0.861-0.869	3	0.67%	0.67%
-2%	0.870-0.878	21	4.69%	5.36%
-1%	0.879-0.887	156	34.82%	40.18%
0%	0.888	15	3.35%	43.53%
1%	0.889-0.897	241	53.79%	97.32%
2%	0.898-0.906	12	2.68%	100.00%
3%	0.907-0.915	0	0.00%	100.00%
4%	0.916-0.924	0	0.00%	100.00%
5%	More Than 0.924	0	0.00%	100.00%
Total		448		

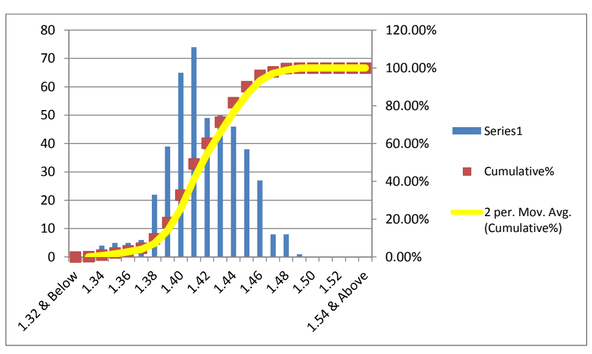


MINIMUM REQUIREMENTS
As per ISO 6935-2: ± 5%
As per ASTM A-615: -6%

T/Y RATIO

Mean	1.419
Median	1.42
Mode	1.44
Std. Dev.	0.028
Min	1.33
Max	1.49
Count	448

Bin	Frequency	%	Cumulative%
1.32 & Below	0	0.00%	0.00%
1.33	1	0.22%	0.22%
1.34	4	0.89%	1.12%
1.35	5	1.12%	2.23%
1.36	5	1.12%	3.35%
1.37	6	1.34%	4.69%
1.38	22	4.91%	9.60%
1.39	39	8.71%	18.30%
1.40	65	14.51%	32.81%
1.41	74	16.52%	49.33%
1.42	49	10.94%	60.27%
1.43	50	11.16%	71.43%
1.44	46	10.27%	81.70%
1.45	38	8.48%	90.18%
1.46	27	6.03%	96.21%
1.47	8	1.79%	97.99%
1.48	8	1.79%	99.78%
1.49	1	0.22%	100.00%
1.50	0	0.00%	100.00%
1.51	0	0.00%	100.00%
1.52	0	0.00%	100.00%
1.53	0	0.00%	100.00%
1.54 & Above	0	0.00%	100.00%
Total	448		

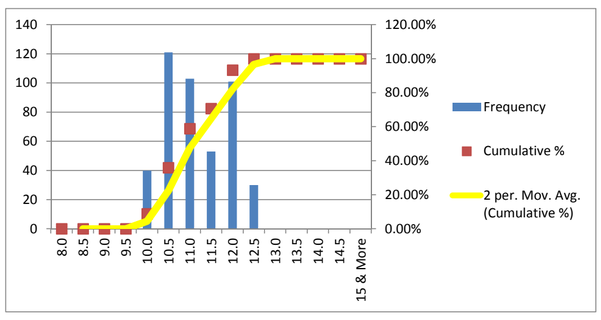


MINIMUM REQUIREMENTS
As per ISO 6935-2: T/Y: 1.25
As per ASTM A-615: Not Required

ELN. AT MAX. FORCE (Agt)(GL-200 mm)

Mean	11.161
Median	11.0
Mode	10.5
Std. Dev.	0.733
Min	10.0
Max	12.5
Count	448

Bin	Frequency	%	Cumulative %
8.0	0	0.00%	0.00%
8.5	0	0.00%	0.00%
9.0	0	0.00%	0.00%
9.5	0	0.00%	0.00%
10.0	40	8.93%	8.93%
10.5	121	27.01%	35.94%
11.0	103	22.99%	58.93%
11.5	53	11.83%	70.76%
12.0	101	22.54%	93.30%
12.5	30	6.70%	100.00%
13.0	0	0.00%	100.00%
13.5	0	0.00%	100.00%
14.0	0	0.00%	100.00%
14.5	0	0.00%	100.00%
15 & More	0	0.00%	100.00%
Total	448		

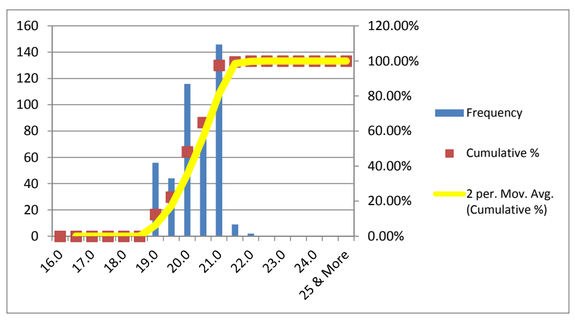


MINIMUM REQUIREMENTS
As per ISO 6935-2: 8%
As per ASTM A-615: Not Required

ELN. AFTER FRACTURE (A5)(GL-5D)

Mean	20.275
Median	20.5
Mode	21.0
Std. Dev.	0.711
Min	19.0
Max	22.0
Count	448

Bin	Frequency	%	Cumulative %
16.0	0	0.00%	0.00%
16.5	0	0.00%	0.00%
17.0	0	0.00%	0.00%
17.5	0	0.00%	0.00%
18.0	0	0.00%	0.00%
18.5	0	0.00%	0.00%
19.0	56	12.50%	12.50%
19.5	44	9.82%	22.32%
20.0	116	25.89%	48.21%
20.5	75	16.74%	64.96%
21.0	146	32.59%	97.54%
21.5	9	2.01%	99.55%
22.0	2	0.45%	100.00%
22.5	0	0.00%	100.00%
23.0	0	0.00%	100.00%
23.5	0	0.00%	100.00%
24.0	0	0.00%	100.00%
24.5	0	0.00%	100.00%
25 & More	0	0.00%	100.00%
Total	448		

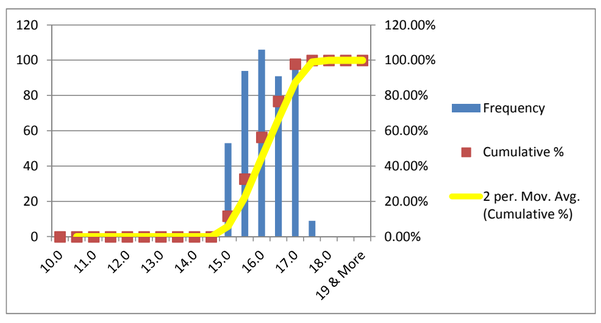


MINIMUM REQUIREMENTS
As per ISO 6935-2: 16%

ELN. AFTER FRACTURE (A)(GL-203.2 mm)

Mean	16.121
Median	16.0
Mode	16.0
Std. Dev.	0.682
Min	15.0
Max	17.5
Count	448

Bin	Frequency	%	Cumulative %
10.0	0	0.00%	0.00%
10.5	0	0.00%	0.00%
11.0	0	0.00%	0.00%
11.5	0	0.00%	0.00%
12.0	0	0.00%	0.00%
12.5	0	0.00%	0.00%
13.0	0	0.00%	0.00%
13.5	0	0.00%	0.00%
14.0	0	0.00%	0.00%
14.5	0	0.00%	0.00%
15.0	53	11.83%	11.83%
15.5	94	20.98%	32.81%
16.0	106	23.66%	56.47%
16.5	91	20.31%	76.79%
17.0	95	21.21%	97.99%
17.5	9	2.01%	100.00%
18.0	0	0.00%	100.00%
18.5	0	0.00%	100.00%
19 & More	0	0.00%	100.00%
Total	448		



MINIMUM REQUIREMENTS
As per ASTM A-615: 9%

BEND TEST:
ALL THE SAMPLES IN THIS CAMPAIGN PASSED THE BEND TEST MAINTAINING MANDREL DIA 3D

MINIMUM REQUIREMENTS
As per ISO 6935-2: 3D
As per ASTM A-615: 3.5D

REBEND TEST:
ALL THE SAMPLES IN THIS CAMPAIGN PASSED THE REBEND TEST MAINTAINING MANDREL DIA 4D

MINIMUM REQUIREMENTS
As per ISO 6935-2: 5D
As per ASTM A-615: Not Required

Nominal Diameter D	Unit Weight	Yield or Proof Strength R_{eH}	Ultimate Tensile Strength R_m	T/Y Ratio	% Total Elongation at Maximum Force A_{gt}	% Elongation after Fracture A	% Elongation after Fracture A	Height of Transverse Rib	Height of Longitudinal Rib
(mm)	(Kg/m)	(MPa)	(MPa)		GL:200mm	GL: 203.2 mm	GL: 5D	mm	mm
12	0.869	425	625	1.47	11.0	16.0	19.0		
12	0.881	450	635	1.41	12.0	16.0	19.5		
12	0.882	425	625	1.47	10.5	15.5	20.0		
12	0.886	475	630	1.33	10.5	15.5	20.5		
12	0.875	425	625	1.47	11.0	16.0	21.0		
12	0.870	435	635	1.46	12.0	16.5	20.0		
12	0.885	425	625	1.47	12.0	15.5	20.0		
12	0.881	450	635	1.41	10.5	16.0	19.5		
12	0.875	465	645	1.39	10.5	15.5	19.0		
12	0.875	440	635	1.44	11.0	16.0	20.0		
12	0.886	430	625	1.45	11.0	15.5	20.5		
12	0.890	445	645	1.45	12.0	16.5	20.5		
12	0.873	470	655	1.39	12.5	17.0	19.0		
12	0.871	440	640	1.45	12.0	17.0	20.0		
12	0.884	455	655	1.44	11.0	15.5	20.0		
12	0.887	455	640	1.41	11.5	16.0	21.0		
12	0.873	465	630	1.35	10.5	15.5	20.0		
12	0.870	450	650	1.44	11.0	16.5	20.5	0.88	0.61
12	0.884	435	635	1.46	10.5	15.0	20.0		
12	0.885	445	650	1.46	12.0	16.0	19.0		
12	0.884	435	635	1.46	10.5	15.0	20.0		
12	0.885	445	650	1.46	12.0	16.0	19.0		
12	0.874	455	635	1.40	12.0	15.5	19.0		
12	0.875	455	645	1.42	11.0	17.0	20.5		
12	0.881	460	655	1.42	11.5	17.0	20.0		
12	0.885	450	650	1.44	10.5	16.0	19.0		
12	0.879	460	670	1.46	10.5	17.0	20.0		
12	0.868	450	650	1.44	11.0	16.0	20.5		
12	0.883	490	675	1.38	12.0	15.5	20.0		
12	0.889	460	650	1.41	12.0	16.0	19.5		
12	0.879	460	670	1.46	11.5	16.0	20.0		
12	0.890	450	655	1.46	10.5	16.5	20.5		
12	0.895	475	635	1.34	12.0	17.0	19.5		
12	0.889	480	670	1.40	12.5	17.0	19.0		
12	0.896	485	660	1.36	11.5	15.5	20.0		
12	0.892	485	650	1.34	12.5	16.5	21.0		
12	0.888	490	680	1.39	11.0	17.0	20.0		
12	0.883	470	680	1.45	11.5	15.5	20.0		
12	0.901	490	685	1.40	12.0	17.0	20.0		
12	0.890	465	680	1.46	10.5	16.5	20.0		
12	0.888	490	690	1.41	12.0	15.5	19.0		
12	0.883	495	685	1.38	12.0	17.0	20.0		
12	0.889	485	700	1.44	12.5	17.0	20.5		
12	0.888	485	695	1.43	11.5	16.5	19.0		
12	0.883	490	680	1.39	10.5	15.5	20.5		
12	0.885	475	690	1.45	10.5	16.5	20.0		
12	0.893	480	685	1.43	11.0	17.0	19.0		
12	0.890	490	675	1.38	11.5	17.0	19.5		
12	0.891	490	690	1.41	12.0	15.5	20.0		
12	0.893	480	680	1.42	10.5	16.5	21.0		
12	0.893	490	680	1.39	10.0	15.5	19.0		
12	0.890	485	670	1.38	10.5	16.0	19.0		
12	0.889	490	675	1.38	11.0	16.5	19.5		
12	0.892	485	670	1.38	10.5	15.0	20.0		
12	0.885	485	705	1.45	12.0	15.5	20.0		
12	0.883	475	700	1.47	11.5	16.5	21.0		
12	0.886	465	690	1.48	10.5	17.0	19.5	0.87	0.65
12	0.887	485	700	1.44	12.0	16.5	20.0		
12	0.889	460	670	1.46	12.5	17.0	20.5		
12	0.886	475	675	1.42	10.5	15.5	19.5		
12	0.888	455	660	1.45	12.0	17.0	21.0		
12	0.887	470	670	1.43	11.0	16.5	21.0		
12	0.895	460	670	1.46	10.5	16.5	20.5		
12	0.897	475	675	1.42	11.0	17.0	21.0		
12	0.893	470	670	1.43	11.5	16.5	20.5		
12	0.896	475	675	1.42	12.5	16.0	19.5		
12	0.898	455	655	1.44	12.0	15.5	21.0		
12	0.899	470	655	1.39	10.5	15.0	20.0		
12	0.897	460	645	1.40	11.0	16.0	21.0		
12	0.899	460	650	1.41	10.5	15.5	20.5		
12	0.896	475	680	1.43	12.0	17.0	21.0		
12	0.897	470	680	1.45	10.5	16.5	20.5		
12	0.891	455	675	1.48	12.0	16.5	21.0		

12	0.893	455	675	1.48	11.0	17.0	21.0		
12	0.896	470	665	1.41	10.5	16.5	20.0		
12	0.897	480	660	1.38	11.5	16.0	19.5		
12	0.891	465	655	1.41	12.0	15.0	20.5		
12	0.893	475	665	1.40	10.5	16.0	21.0		
12	0.887	460	670	1.46	11.0	16.0	20.0		
12	0.892	470	665	1.41	10.5	15.5	20.5		
12	0.894	455	660	1.45	12.0	17.0	20.5		
12	0.895	460	665	1.45	10.5	16.5	21.0		
12	0.891	455	670	1.47	12.5	16.0	21.0		
12	0.893	465	660	1.42	12.0	15.5	20.5		
12	0.894	455	655	1.44	11.0	16.0	20.0		
12	0.895	455	660	1.45	11.5	16.5	19.5		
12	0.877	460	675	1.47	10.5	17.0	21.0		
12	0.875	465	665	1.43	12.5	16.5	20.5		
12	0.873	460	670	1.46	11.5	15.0	21.0		
12	0.876	460	665	1.45	10.5	16.0	20.5		
12	0.880	465	670	1.44	11.0	16.0	21.0		
12	0.886	470	665	1.41	12.0	15.5	20.0	0.95	0.65
12	0.882	465	660	1.42	10.5	16.0	20.5		
12	0.883	465	665	1.43	12.5	17.0	21.0		
12	0.890	460	660	1.43	12.0	17.0	21.0		
12	0.887	450	650	1.44	11.0	16.5	20.0		
12	0.889	475	680	1.43	10.5	16.0	20.0		
12	0.890	480	685	1.43	11.0	15.5	21.5		
12	0.886	470	685	1.46	11.5	16.0	19.0		
12	0.885	465	665	1.43	11.0	16.0	20.0		
12	0.884	475	685	1.44	12.5	17.0	21.0		
12	0.882	470	675	1.44	11.0	16.5	19.0		
12	0.886	470	695	1.48	10.5	16.5	21.0		
12	0.884	475	675	1.42	11.5	17.0	21.0		
12	0.881	465	660	1.42	12.0	16.5	20.0		
12	0.882	470	665	1.41	10.5	15.5	19.0		
12	0.890	480	675	1.41	11.0	15.0	19.0		
12	0.895	475	685	1.44	12.5	16.5	21.0		
12	0.894	465	680	1.46	12.0	15.0	19.0		
12	0.894	470	665	1.41	10.5	17.0	21.0		
12	0.886	475	670	1.41	11.0	17.0	21.0		
12	0.889	470	675	1.44	11.0	16.0	19.0		
12	0.888	465	655	1.41	10.5	15.5	19.0		
12	0.886	460	650	1.41	11.5	16.0	21.0		
12	0.885	450	640	1.42	12.0	16.5	20.0		
12	0.882	455	630	1.38	10.5	16.0	19.5		
12	0.883	450	635	1.41	12.5	15.5	19.5		
12	0.885	450	640	1.42	12.0	17.0	20.5		
12	0.884	455	650	1.43	10.5	16.5	21.0		
12	0.881	450	650	1.44	11.0	16.0	21.0		
12	0.886	460	640	1.39	11.5	15.0	21.0		
12	0.887	450	650	1.44	10.5	15.5	20.5		
12	0.886	450	650	1.44	10.0	17.0	21.0		
12	0.884	460	640	1.39	10.5	16.5	21.0		
12	0.882	460	645	1.40	12.0	16.0	21.0		
12	0.885	460	645	1.40	12.0	16.5	21.0		
12	0.893	465	645	1.39	12.5	15.5	20.5		
12	0.891	460	645	1.40	10.5	15.0	21.0	0.88	0.70
12	0.884	455	645	1.42	11.0	16.0	19.5		
12	0.885	465	655	1.41	12.5	17.0	20.5		
12	0.885	460	670	1.46	10.5	15.5	20.5		
12	0.887	475	675	1.42	12.0	16.5	19.5		
12	0.886	455	660	1.45	11.5	16.0	21.0		
12	0.881	470	670	1.43	10.5	15.0	21.0		
12	0.886	460	670	1.46	11.0	15.5	20.5		
12	0.889	475	675	1.42	12.5	17.0	21.0		
12	0.889	470	670	1.43	11.5	16.5	20.5		
12	0.887	475	675	1.42	10.5	16.0	19.5		
12	0.887	455	655	1.44	12.0	15.5	21.0		
12	0.885	470	655	1.39	10.5	16.0	20.0		
12	0.884	460	645	1.40	11.0	16.5	21.0		
12	0.886	460	650	1.41	12.5	17.0	20.5		
12	0.880	475	680	1.43	12.0	17.0	21.0		
12	0.879	470	680	1.45	12.0	16.5	20.5		
12	0.882	455	675	1.48	10.5	15.5	21.0		
12	0.881	455	675	1.48	11.0	17.0	21.0		
12	0.886	470	665	1.41	11.0	16.5	20.0		
12	0.890	480	660	1.38	10.5	15.5	19.5		
12	0.890	465	655	1.41	10.5	16.0	20.5		

12	0.892	475	665	1.40	12.0	17.0	21.0		
12	0.890	460	670	1.46	12.5	16.5	21.0		
12	0.892	470	665	1.41	12.0	16.5	20.5		
12	0.893	455	660	1.45	11.0	16.0	20.5		
12	0.891	460	665	1.45	10.5	17.0	21.0		
12	0.890	455	670	1.47	10.0	16.5	21.0		
12	0.889	465	660	1.42	10.5	17.0	20.5		
12	0.887	455	655	1.44	11.0	16.0	20.0		
12	0.886	455	660	1.45	11.5	15.5	19.5		
12	0.890	460	655	1.42	10.5	16.5	20.5		
12	0.893	460	650	1.41	12.5	17.0	21.0		
12	0.891	455	655	1.44	10.5	16.0	20.0		
12	0.892	450	645	1.43	12.5	16.5	21.0		
12	0.890	455	680	1.49	11.5	16.0	20.5		
12	0.889	455	670	1.47	10.5	15.5	19.5	0.87	0.66
12	0.896	455	675	1.48	12.0	17.0	20.5		
12	0.896	455	670	1.47	12.5	16.5	21.0		
12	0.887	465	660	1.42	11.5	17.0	21.0		
12	0.889	455	645	1.42	10.5	16.0	20.5		
12	0.890	465	650	1.40	11.0	15.5	20.5		
12	0.887	455	650	1.43	12.5	17.0	21.0		
10	0.894	465	645	1.39	11.0	16.0	20.0		
10	0.893	465	650	1.40	10.5	15.0	19.0		
10	0.886	460	640	1.39	10.0	15.0	19.0		
10	0.890	455	640	1.41	11.5	16.0	21.0		
10	0.896	460	650	1.41	11.0	15.0	20.0		
10	0.895	465	655	1.41	12.0	16.5	21.0		
10	0.889	460	655	1.42	10.0	15.0	19.0		
10	0.891	445	655	1.47	10.5	15.5	19.0		
10	0.887	455	650	1.43	11.5	16.0	20.0		
10	0.889	475	655	1.38	12.0	17.0	21.5		
10	0.884	460	650	1.41	11.5	16.5	21.5		
10	0.883	455	655	1.44	11.0	16.0	21.0		
10	0.889	450	655	1.46	10.5	16.5	21.0		
10	0.891	450	645	1.43	10.0	15.0	20.0		
10	0.885	465	650	1.40	10.0	15.5	20.0		
10	0.883	460	645	1.40	10.5	15.0	19.0		
10	0.890	465	660	1.42	11.0	16.0	20.0		
10	0.892	475	670	1.41	12.0	16.5	21.0		
10	0.887	460	650	1.41	11.5	16.0	21.0		
10	0.884	460	655	1.42	10.0	15.5	20.0		
10	0.890	460	650	1.41	10.5	16.0	21.0		
10	0.894	460	655	1.42	12.0	16.5	21.5		
10	0.889	455	645	1.42	11.0	16.0	21.0		
10	0.886	475	670	1.41	10.5	15.5	21.0		
10	0.873	460	655	1.42	12.0	17.0	21.5		
10	0.865	465	645	1.39	10.0	16.0	20.0		
10	0.875	460	645	1.40	10.0	15.0	19.0		
10	0.875	450	645	1.43	12.0	17.5	22.0		
10	0.891	460	645	1.40	11.0	16.0	21.0		
10	0.890	460	650	1.41	10.5	15.0	20.0	0.85	0.75
10	0.894	455	640	1.41	11.0	15.5	20.5		
10	0.895	455	640	1.41	10.5	15.0	19.5		
10	0.891	475	665	1.40	11.0	16.0	21.0		
10	0.892	465	655	1.41	10.5	15.5	20.0		
10	0.892	480	670	1.40	11.0	16.0	21.0		
10	0.893	470	665	1.41	11.0	16.0	20.5		
10	0.892	450	645	1.43	12.0	16.5	21.0		
10	0.894	445	640	1.44	10.0	15.0	19.5		
10	0.893	455	650	1.43	10.5	16.0	20.5		
10	0.893	465	655	1.41	11.0	16.5	21.0		
10	0.894	440	635	1.44	11.5	17.0	21.5		
10	0.895	460	650	1.41	10.5	16.0	21.0		
10	0.894	450	640	1.42	10.0	15.5	20.5		
10	0.895	450	635	1.41	10.0	17.0	21.0		
10	0.895	435	630	1.45	11.0	16.5	21.0		
10	0.896	450	645	1.43	11.5	16.0	20.0		
10	0.894	445	640	1.44	11.0	16.5	21.0		
10	0.896	445	640	1.44	12.0	17.0	21.5		
10	0.895	470	660	1.40	10.5	16.0	21.0		
10	0.897	465	650	1.40	11.0	16.5	21.0		
10	0.895	465	655	1.41	10.0	15.0	20.0		
10	0.896	460	655	1.42	11.0	15.5	21.0		
10	0.896	475	675	1.42	12.0	16.5	21.5		
10	0.897	475	670	1.41	10.5	17.0	22.0		
10	0.895	480	670	1.40	10.0	16.5	20.5		

10	0.895	465	655	1.41	10.0	15.5	20.0		
10	0.885	460	660	1.43	11.0	16.0	21.0		
10	0.884	450	650	1.44	10.0	15.5	20.0		
10	0.890	475	665	1.40	10.5	15.0	20.0		
10	0.888	485	675	1.39	12.0	17.0	21.5		
10	0.885	480	675	1.41	10.0	15.0	19.0		
10	0.886	485	680	1.40	10.0	15.5	20.0		
10	0.890	485	685	1.41	11.0	16.0	21.0		
10	0.889	480	670	1.40	10.0	15.0	19.0		
10	0.886	470	660	1.40	12.0	16.0	21.0		
10	0.888	475	665	1.40	11.5	16.5	21.0	0.88	0.82
10	0.891	465	650	1.40	11.0	16.0	20.0		
10	0.890	475	665	1.40	10.0	15.0	19.0		
10	0.888	485	675	1.39	10.5	15.5	19.0		
10	0.891	485	675	1.39	11.0	17.0	21.0		
10	0.891	485	670	1.38	10.0	15.0	19.0		
10	0.892	480	670	1.40	10.5	16.5	21.0		
10	0.889	475	665	1.40	12.0	16.0	21.0		
10	0.893	480	670	1.40	10.0	15.0	19.0		
10	0.892	470	660	1.40	10.5	15.5	19.0		
10	0.892	475	665	1.40	11.0	17.0	21.0		
10	0.891	480	675	1.41	10.0	15.0	19.0		
10	0.895	485	670	1.38	10.5	15.5	19.0		
10	0.894	480	675	1.41	10.5	16.0	19.5		
10	0.893	485	670	1.38	11.0	15.5	20.0		
10	0.892	485	675	1.39	11.5	15.0	20.0		
10	0.895	475	665	1.40	11.5	16.0	21.0		
10	0.895	465	655	1.41	10.0	15.0	19.5		
10	0.894	485	670	1.38	10.5	16.5	20.0		
10	0.886	460	670	1.46	10.5	16.5	20.5		
10	0.887	475	675	1.42	10.0	15.5	19.5		
10	0.892	455	660	1.45	11.0	17.0	21.0		
10	0.894	470	670	1.43	10.5	16.5	21.0		
10	0.888	470	670	1.43	11.0	16.0	20.5		
10	0.891	475	675	1.42	12.0	16.0	21.0		
10	0.891	470	670	1.43	10.5	16.5	20.5		
10	0.892	475	675	1.42	10.0	15.0	19.5		
10	0.890	470	655	1.39	11.0	16.0	21.0		
10	0.893	470	655	1.39	10.5	15.5	20.0		
10	0.891	460	645	1.40	11.5	17.0	21.0		
10	0.890	460	650	1.41	10.0	16.0	20.5		
10	0.885	475	660	1.39	11.0	16.5	21.0		
10	0.895	470	665	1.41	10.0	15.5	20.5	0.82	0.80
10	0.893	455	655	1.44	10.0	16.0	21.0		
10	0.891	455	650	1.43	10.5	16.5	21.0		
10	0.889	475	665	1.40	10.0	16.0	20.0		
10	0.897	480	660	1.38	10.0	15.0	19.5		
10	0.892	465	655	1.41	11.0	15.5	20.5		
10	0.893	475	665	1.40	11.5	17.0	21.0		
10	0.891	470	670	1.43	11.0	16.5	21.0		
10	0.892	470	665	1.41	10.0	15.5	20.5		
10	0.894	455	660	1.45	10.5	15.0	20.5		
10	0.888	460	665	1.45	10.0	16.0	21.0		
10	0.892	465	670	1.44	11.0	16.5	21.0		
10	0.893	465	660	1.42	11.5	16.0	20.5		
10	0.890	455	655	1.44	10.5	15.5	20.0		
10	0.889	455	660	1.45	10.0	15.0	19.5		
12	0.896	470	645	1.37	10.5	15.0	20.0		
12	0.904	460	640	1.39	11.0	16.0	21.0		
12	0.900	445	645	1.45	12.0	17.0	19.5		
12	0.893	455	645	1.42	11.5	15.0	21.0		
12	0.897	480	670	1.40	12.0	16.5	20.0		
12	0.900	475	675	1.42	12.0	17.5	19.0		
12	0.899	480	675	1.41	11.0	15.0	19.0		
12	0.892	480	670	1.40	10.5	16.5	21.0		
12	0.894	450	650	1.44	10.5	15.0	21.0		
12	0.890	450	655	1.46	11.0	16.5	20.0		
12	0.891	455	665	1.46	11.0	17.5	20.0		
12	0.896	460	660	1.43	12.0	17.5	19.0		
12	0.895	455	660	1.45	12.0	16.0	21.0		
12	0.896	465	665	1.43	11.0	15.5	21.0		
12	0.897	450	650	1.44	10.5	16.5	20.0		
12	0.888	455	655	1.44	11.5	17.0	20.5		
12	0.885	450	650	1.44	12.0	17.0	21.0		
12	0.886	465	655	1.41	12.0	17.0	20.0	0.8	0.7
12	0.884	465	655	1.41	10.5	15.0	19.5		

12	0.885	455	660	1.45	11.5	16.0	20.0		
12	0.882	470	655	1.39	12.0	17.0	21.0		
12	0.885	470	660	1.40	12.0	16.5	20.0		
12	0.890	475	665	1.40	11.5	15.5	20.0		
12	0.897	470	660	1.40	10.5	15.5	19.0		
12	0.898	455	640	1.41	11.0	15.0	20.5		
12	0.893	470	660	1.40	11.0	16.0	21.0		
12	0.890	465	645	1.39	12.0	17.0	21.0		
12	0.887	460	640	1.39	10.5	17.5	19.5		
12	0.887	455	660	1.45	11.0	16.0	20.0		
12	0.885	475	670	1.41	11.5	17.0	21.0		
12	0.886	485	675	1.39	10.5	17.5	20.0		
12	0.889	470	665	1.41	11.0	15.0	19.0		
12	0.892	490	655	1.34	11.0	16.0	19.0		
12	0.894	475	660	1.39	12.0	15.0	20.0		
12	0.893	460	655	1.42	12.0	15.0	20.0		
12	0.891	460	655	1.42	10.5	17.0	21.0		
12	0.895	460	640	1.39	10.5	16.0	20.0		
12	0.897	465	665	1.43	11.0	15.5	21.0		
12	0.890	460	665	1.45	12.0	17.5	20.0		
12	0.886	470	635	1.35	11.5	17.5	19.0		
12	0.898	460	630	1.37	10.5	15.0	20.0		
12	0.893	470	635	1.35	11.0	16.0	21.0		
12	0.891	470	630	1.34	12.0	15.5	21.0		
12	0.897	450	630	1.40	12.0	17.0	20.0		
12	0.888	470	640	1.36	12.0	17.0	20.5		
12	0.887	455	635	1.40	10.5	16.5	19.5		
12	0.882	460	625	1.36	10.5	15.5	20.0		
12	0.883	460	625	1.36	11.0	17.5	21.0		
12	0.886	470	655	1.39	10.5	17.0	20.0		
12	0.885	470	660	1.40	12.0	15.0	19.5		
12	0.889	465	650	1.40	10.5	16.0	21.0		
12	0.896	460	660	1.43	10.0	15.5	20.5		
12	0.891	470	645	1.37	10.5	17.0	19.0		
12	0.894	450	645	1.43	11.0	15.5	21.0	0.97	0.80
12	0.892	455	640	1.41	12.0	16.0	21.0		
12	0.892	445	635	1.43	11.0	15.5	20.0		
12	0.895	465	670	1.44	10.0	17.0	20.5		
12	0.893	450	650	1.44	12.0	15.5	20.0		
12	0.895	445	650	1.46	10.5	16.0	19.0		
12	0.894	450	630	1.40	11.0	15.5	19.5		
12	0.897	455	635	1.40	12.0	16.0	21.0		
12	0.899	445	640	1.44	10.5	17.0	20.0		
12	0.896	460	660	1.43	11.0	15.5	20.0		
12	0.897	450	650	1.44	11.0	16.0	20.0		
12	0.887	485	670	1.38	12.0	17.0	20.5		
12	0.878	460	650	1.41	10.5	15.5	20.0		
12	0.890	460	655	1.42	10.5	16.5	19.5		
12	0.886	455	660	1.45	11.0	15.5	20.0		
12	0.880	470	660	1.40	12.0	16.0	21.0		
12	0.882	470	660	1.40	12.0	17.0	19.0		
12	0.889	475	665	1.40	11.5	15.5	20.0		
12	0.886	470	665	1.41	11.0	16.0	19.5		
12	0.890	470	655	1.39	12.0	15.5	20.0		
12	0.880	465	660	1.42	12.0	16.0	21.0		
12	0.880	460	660	1.43	10.5	17.0	20.0		
12	0.891	465	665	1.43	12.0	15.5	21.0		
12	0.889	470	655	1.39	11.0	17.0	20.0		
12	0.892	480	660	1.38	11.5	16.5	20.0		
12	0.885	470	660	1.40	10.5	15.5	19.5		
12	0.886	470	655	1.39	12.0	15.0	19.5		
12	0.891	475	660	1.39	12.0	17.0	20.0		
12	0.887	470	660	1.40	11.5	15.0	20.0		
12	0.886	470	660	1.40	10.5	15.5	19.0		
12	0.883	460	655	1.42	11.0	17.0	20.0		
12	0.891	480	650	1.35	12.0	16.0	20.5		
12	0.885	470	660	1.40	12.0	15.5	20.5		
12	0.887	460	655	1.42	12.0	16.5	21.0		
12	0.886	470	650	1.38	10.5	17.0	21.0		
12	0.883	460	655	1.42	11.0	15.5	20.0		
12	0.886	460	650	1.41	12.0	16.5	21.0	0.93	0.82
12	0.885	455	655	1.44	11.5	17.0	20.0		
12	0.884	450	645	1.43	12.0	15.5	20.0		
12	0.882	450	645	1.43	10.5	16.0	20.5		
12	0.890	455	640	1.41	10.5	17.0	19.5		
12	0.892	455	655	1.44	11.0	15.5	21.0		

12	0.885	465	660	1.42	12.0	16.0	20.5		
12	0.884	455	645	1.42	11.0	17.0	20.5		
12	0.887	465	650	1.40	12.0	15.5	20.5		
12	0.890	455	650	1.43	11.5	16.0	21.0		
12	0.896	460	645	1.40	10.5	15.0	20.5		
12	0.888	455	645	1.42	10.5	16.0	20.0		
12	0.885	450	650	1.44	10.5	17.0	20.0		
12	0.884	450	650	1.44	10.5	15.5	19.0		
12	0.883	465	660	1.42	11.0	16.5	19.0		
12	0.889	470	640	1.36	12.0	17.0	20.0		
12	0.890	455	630	1.38	11.0	17.0	21.0		
12	0.892	470	635	1.35	10.5	16.5	19.5		
12	0.893	470	645	1.37	12.0	16.5	21.0		
12	0.894	470	645	1.37	11.5	15.5	19.0		
12	0.885	460	645	1.40	10.5	17.0	20.0		
12	0.882	465	645	1.39	11.0	15.0	20.0		
12	0.886	465	650	1.40	12.0	16.0	21.0		
12	0.890	470	650	1.38	11.0	15.0	19.0		
12	0.892	470	645	1.37	12.0	17.0	20.0		
12	0.894	450	650	1.44	10.5	16.0	21.0		
12	0.893	465	645	1.39	10.5	15.5	19.0		
12	0.888	465	645	1.39	11.0	17.0	20.0		
12	0.887	445	640	1.44	12.0	16.0	20.0		
12	0.888	460	640	1.39	12.0	15.5	20.0		
12	0.885	450	635	1.41	11.5	17.0	21.0		
12	0.894	460	635	1.38	10.5	15.5	19.0		
12	0.898	470	660	1.40	12.0	16.0	20.0		
12	0.896	470	665	1.41	11.0	17.0	21.0		
12	0.896	450	645	1.43	11.5	16.5	21.0		
12	0.891	470	660	1.40	10.5	15.5	20.0		
12	0.893	455	640	1.41	10.0	16.0	21.0	0.92	0.65
12	0.890	460	650	1.41	12.0	15.0	19.0		
12	0.892	460	645	1.40	12.5	16.5	20.0		
12	0.895	460	650	1.41	11.0	16.5	21.0		
12	0.896	470	660	1.40	11.0	15.5	19.0		
12	0.894	470	650	1.38	12.0	16.5	20.0		
12	0.896	465	660	1.42	12.5	17.0	21.0		
12	0.874	465	680	1.46	11.5	16.5	21.0		
12	0.880	475	695	1.46	10.0	16.0	19.5		
12	0.879	465	675	1.45	12.0	17.0	20.5		
12	0.880	470	685	1.46	10.5	15.5	20.0		
12	0.881	460	665	1.45	11.0	16.0	21.0		
12	0.884	470	670	1.43	11.0	16.5	20.5		
12	0.883	465	665	1.43	12.0	17.0	21.0		
12	0.882	470	665	1.41	12.5	16.5	21.0		
12	0.885	475	670	1.41	12.5	16.5	20.0		
12	0.889	470	675	1.44	10.5	15.5	19.5		
12	0.886	470	665	1.41	11.0	16.0	20.5		
12	0.884	470	665	1.41	11.5	16.5	20.0		
12	0.878	470	670	1.43	10.5	15.5	19.0		
12	0.877	485	675	1.39	12.0	15.0	19.5		
12	0.880	470	670	1.43	12.5	17.0	20.5		
12	0.880	480	670	1.40	12.0	15.0	19.0		
12	0.881	475	675	1.42	11.5	15.5	19.5		
12	0.880	485	675	1.39	11.0	16.0	19.5		
12	0.880	475	670	1.41	11.0	15.5	19.0		
12	0.882	475	680	1.43	10.5	16.5	20.5		
12	0.889	480	690	1.44	12.5	16.0	20.0		
12	0.887	465	680	1.46	11.5	17.0	21.0		
12	0.889	455	660	1.45	12.0	16.5	20.5		
12	0.890	475	675	1.42	11.0	17.0	21.0	0.87	0.69
12	0.891	470	670	1.43	10.5	17.0	21.0		
12	0.886	475	660	1.39	10.0	16.5	21.0		
12	0.890	455	665	1.46	11.0	16.0	20.0		
12	0.891	465	665	1.43	12.5	16.5	21.0		
12	0.890	460	670	1.46	12.5	17.0	21.0		
12	0.892	475	670	1.41	10.5	16.5	20.5		
12	0.896	460	665	1.45	11.5	16.0	20.5		
12	0.894	465	675	1.45	10.5	15.5	20.5		
12	0.895	455	670	1.47	11.0	16.0	20.0		
12	0.896	460	665	1.45	12.0	17.0	21.0		
12	0.894	465	675	1.45	12.5	16.5	21.0		
12	0.893	470	680	1.45	11.5	17.0	21.0		