ID	NAME	TABLE	GRAPH	# OF MIXES	126	INPUTS:	Fly Ash Class F	Fly Ash Class C	Slag		SiO2	Al2O3	Fe2O3	TiO2	CaO	MgO	K2O	Na2O	SO3	P2O5	LOI		Na2SiO3	NaOH		CA	FA	Water	SP		OUTPUTS:	Mass Loss	Weight Loss	Compressive Strength	
	Sulfuric Acid																																		
	ASTM C1898-20 Standard Test Methods for Determining the Chemical Resistance of Concrete Products to Acid Attack - says use sulfuric acid																																		
	Sulfuric Acid (acid resistance) is more common, standardized, + more research than sodium sulfate (sulfate resistance) or chloride resistance																																		
1111	Resistance to Sulfuric Acid Corrosion of Geopolymer Concrete Based on Different Binding Materials and Alkali Concentrations		x	6			x	x			x	x	x	x	x	x	x	x	x		x		x	x			x	x			x		x		**50x100mm cylinder compressive testing
1112	Long-term sulfuric and hydrochloric acid resistance of silica fume and colemanite waste reinforced metakaolin-based geopolymers		x	5					x		x	x	x	x	x	x	x	x			x		x	x			x				x		x		
1113	Evaluation of accelerated degradation test methods for cementitious composites subject to sulfuric acid attack: application to conventional and alkali-activated concretes		x	1			x				x	x	x	x	x	x	x	x	x	x	x		x	x		x	x	x	x			x		x	
1114	Durability Study on High Calcium Fly Ash Based Geopolymer Concrete		x	3				x			x	x	x		x	x		x	x		x		x	x		x	x							x	
1115	DURABILITY STUDY OF LOW CALCIUM FLY ASH GEOPOLYMER CONCRETE	x	x	8			x				x	x	x		x	x	x	x	x		x		x	x				x				x			
1116	Performance of geopolymer concrete under severe environmental conditions		x	16			x																x	x		x	x	x	x				x	x	
1117	Evaluation of performance of Geopolymer Concrete in acid environment	x		1			x																x	x		x	x						x	x	
1118	Comparative analysis of chloride and acid resistance in one-part geopolymer and low carbon dioxide concrete	x		2			x		x		x	x	x	x	x	x	x	x	x		x		x			x	x					x		x	
1119	Acid Resistance of Fly ash based Geopolymer mortars	x		3			x				x	x	x	x	x	x	x	x	x	x	x		x	x			x						x		x	
1120	Sulfate and Acid Resistance of Fly Ash-Based Geopolymer Concrete		x	1							x	x	x	x	x	x	x	x	x	x	x															
1121	Durability of fly ash based Geopolymer concrete against sulphuric acid attack		x	3							x	x	x		x		x	x										x							
1122	A Novel Type of Alkaline Activator for Geopolymer Concrete Based on Metakaolin	x		5							x	x	x	x		x	x	x			x		x	x		x	x	x	x						
1123	ACID AND SALT RESISTANCE OF GEOPOLYMER CONCRETE WITH VARYING CONCENTRATION OF NaOH	x		4			x																x	x		x	x	x					x		x	
1124	Influence of slag on mechanical and durability properties of fly ash-based geopolymer concrete	x	x	10			x		x		x	x	x	x	x	x	x	x	x	x	x		x	x		x	x					x			x	
1125	Development and performance of class F fly ash based geopolymer concretes against sulphuric acid attack		x	9			x				x	x	x	x	x		x	x	x		x		x	x		x	x	x				x			x	
1126	Effects of Sulfate and Sulfuric Acid on Efficiency of Geopolymers as Concrete Repair Materials		x	1			x				x	x	x		x	x	x	x	x		x		x	x				x							
1127	RESISTANCE OF FLY ASH BASED GEOPOLYMER MORTARS IN SULFURIC ACID		x	3			x				x	x	x	x	x	x	x	x	x	x	x		x	x				x					x		x	
1128	Microstructural Analysis of Geopolymer and Ordinary Portland Cement Mortar Exposed to Sulfuric Acid	x		1							x	x	x	x	x		x		x	x	x		x	x			x	x					x		x	
1129	Sulphuric Acid Resistant Ecofriendly concrete from geopolymerisation of blast furnance slag	x		2			x		x		x	x	x		x	x		x	x		x		x	x		x	x						x		x	
1130	MECHANICAL STRENGTH DEGRADATION OF SLAG AND FLY ASH BASED GEOPOLYMER SPECIMENS EXPOSED TO SULFURIC ACID ATTACK	x		2			x		x		x	x	x		x	x	x	x	x		x		x	x		x	x	x	x				x		x	
1131	Effect of relative GGBS/fly contents and alkaline solution concentration on compressive strength development of geopolymer mortars subjected to sulfuric acid		x	27			x				x	x	x	x	x	x	x		x				x	x			x		x				x		x	
1132	Corrosion resistance of fly ash-based geopolymer in hydrochloric and sulfuric acid solutions		x	1			x				x	x	x		x									x									x		x	
1133	Fly ash geopolymer concrete durability to sulphate, acid and peat attack		x	6			x				x	x	x		x	x		x					x	x		x	x	x				x			x	
1134	Effect of Curing Mechanism on Sulfuric Acid Corrosion Resistance of Geopolymer Recycled Aggregate Concrete			6				x															x	x		x	x					x			x	
	REVIEW																																			

ID	MIX ID	Fly Ash (kg/m3)	Slag (kg/m3)	SiO2	Al2O3	SiO2:Al2O3	CaO	CaO:SiO2	CaO:Al2O3	Fe2O3	Fe2O3:Al2O3	Na2SiO3 (kg/m3)	NaOH (kg/m3)	Na2SiO3:NaOH	NaOH (M)	Activator:Binder	Extra Water (kg/m3)	Liquid:Binder	Coarse Aggregate (kg/m3)	Fine Aggregate (kg/m3)	Fine Aggregate : Total Aggregate	Total Aggregate : Binder	Curing Temp (C)	Curing Time (hr)	Age before Exposure (Days)	H2SO4 (M)	Days Submerged	Mass Change (%)	Compressive Strength (MPa)
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	0	0	20.1
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	7	-0.86	20.4
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	14	-1.65	30.6
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	28	-1.41	29.5
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	63	-1.18	27.3
1111	F-8	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	8	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	98	-7.17	18.2
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	0	0	32.4
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	7	-1.29	21.2
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	14	-2.01	21.1
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	28	-1.93	36.1
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	63	-1.94	23.5
1111	F-12	377	0	44.94	32.15	1.397822706	9.9	0.22029372	0.3079315708	5.14	0.1598755832	162	108	1.5	12	0.7161803714	0	0.7161803714	1150	500	0.303030303	4.376657825	60	48	7	0.05	98	-7.53	20.7
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	0	0	25.6
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	7	-0.66	21.1
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	14	-1.49	31.4
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	28	-1.29	32.8
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	63	-1.3	21.8
1111	C-8	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	8	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	98	-6.5	29.1
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	0	0	27.2
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	7	-0.54	26.9
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	14	-1.25	29
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	28	-1.41	40.2
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	63	-1.62	30.6
1111	C-12	450	0	44.18	26.92	1.64115899	11.02	0.24943413	0.4093610698	9.34	0.3469539376	162	108	1.5	12	0.6	0	0.6	1150	500	0.303030303	3.666666667	60	48	7	0.05	98	-4.43	25.1
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	0.05	0	0	22.2
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	0.05	14	-0.84	23.31
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	0.05	42	-1.31	25.2969
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	0.05	98	-2.43	37.4958
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	0.05	144	-3.4	22.4442
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	1.58	0	0	22.2
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	1.58	14	-0.9	22.04238
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	1.58	42	-1.5	21.12108
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	1.58	98	-11.66	18.02196
1113	AAC	424.8	0	54.24	28.94	1.874222529	3.58	0.06600294	0.1237042156	4.01	0.1385625432	95	63.4	1.498422713	14	0.3728813559	16.8	0.4124293785	1176	576	0.3287671233	4.124293785	20	48	28	1.58	116	-15.43	17.02518
1114	M20	383	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	137	54.51	2.513300312	12	0.5000261097	0	0.5000261097	1379	567	0.2913669065	5.080939948	30	48	7	0.204	14		19.58
1114	M20	383	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	137	54.51	2.513300312	12	0.5000261097	0	0.5000261097	1379	567	0.2913669065	5.080939948	30	48	7	0.204	28		16.62
1114	M20	383	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	137	54.51	2.513300312	12	0.5000261097	0	0.5000261097	1379	567	0.2913669065	5.080939948	30	48	7	0.204	45		12.53
1114	M40	527	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	133.33	53.33	2.500093756	12	0.3541935484	0	0.3541935484	1159	522	0.3105294468	3.189753321	30	48	7	0.204	14		18.74
1114	M40	527	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	133.33	53.33	2.500093756	12	0.3541935484	0	0.3541935484	1159	522	0.3105294468	3.189753321	30	48	7	0.204	28		16.01
1114	M40	527	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	133.33	53.33	2.500093756	12	0.3541935484	0	0.3541935484	1159	522	0.3105294468	3.189753321	30	48	7	0.204	45		12
1114	M60	530	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	128.59	51.59	2.492537313	12	0.3399622642	0	0.3399622642	1070	505	0.3206349206	2.971698113	30	48	7	0.204	14		15.37
1114	M60	530	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	128.59	51.59	2.492537313	12	0.3399622642	0	0.3399622642	1070	505	0.3206349206	2.971698113	30	48	7	0.204	28		13.06
1114	M60	530	0	25.69	17.1	1.502339181	24.54	0.95523550	1.435087719	9.43	0.5514619883	128.59	51.59	2.492537313	12	0.3399622642	0	0.3399622642	1070	505	0.3206349206	2.971698113	30	48	7	0.204	45		9.79
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	15		37.7
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	30		35.92
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	45		30.68
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	15		38.42
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	30		35.84
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	8	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	45		32.05
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	15		45.33
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	30		40.37
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.36	48.95	2.499693565	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	45		35.93
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	15		46.33
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	30		42.01
1116	M-30	380.69	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	133.24	38.07	3.499868663	12	0.4499986866	38.06	0.5499750453	1293.6	554.4	0.3	4.854343429	60	24	7	1.02	45		37.59
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	8	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	15		46.41
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	8	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	30		42.05
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	8	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	45		35.82
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	8	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	15		48.08
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	8	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	30		42.91
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	8	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	45		36.53
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	12	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	15		48.87
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	12	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	30		45.56
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	112.65	45.06	2.5	12	0.3999847828	39.42	0.4999619569	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	45		40.24
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	12	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	15		52.08
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	12	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	30		48.21
1116	M-40	394.29	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	122.67	35.05	3.499857347	12	0.4000101448	39.42	0.499987319	1293.6	554.4	0.3	4.686905577	60	24	7	1.02	45		42.79
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	15		48.88
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	30		46.01
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	45		40.27
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	15		50.66
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	30		46.1
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	8	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	45		41.4
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	15		53.3
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	30		45.43
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	102.22	40.89	2.499877721	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	45		40.35
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	15		55.95
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	30		49.76
1116	M-50	408.89	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	111.31	31.8	3.500314465	12	0.3499963315	40.88	0.4499743207	1293.6	554.4	0.3	4.519552936	60	24	7	1.02	45		45.44
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	8	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	15		59.46
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	8	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	30		54.71
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	8	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	45		48.88
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.08	28.31	3.499823384	8	0.3000094202	42.46	0.4000047101	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	15		62.21
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.08	28.31	3.499823384	8	0.3000094202	42.46	0.4000047101	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	30		58.44
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.08	28.31	3.499823384	8	0.3000094202	42.46	0.4000047101	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	45		53.95
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	12	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	15		64.36
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	12	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	30		58.99
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	91	36.4	2.5	12	0.3000329707	42.46	0.4000282606	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	45		54.18
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.05	28.31	3.498763688	12	0.2999387688	42.46	0.3999340587	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	15		65.58
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.05	28.31	3.498763688	12	0.2999387688	42.46	0.3999340587	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	30		61.15
1116	M-60	424.62	0	57	26	2.192307692	0.97	0.01701754	0.0373076923	8.7	0.3346153846	99.05	28.31	3.498763688	12	0.2999387688	42.46	0.3999340587	1293.6	554.4	0.3	4.352126607	60	24	7	1.02	45		56.84
1117	GPC	409	0	48.8	27	1.807407407	6.2	0.12704918	0.2296296296	10.2	0.3777777778	102	41	2.487804878	6	0.3496332518	0	0.3496332518	1290	549	0.2985318108	4.496332518	20			0.204	0	0	35.87
1117	GPC	409	0	48.8	27	1.807407407	6.2	0.12704918	0.2296296296	10.2	0.3777777778	102	41	2.487804878	6	0.3496332518	0	0.3496332518	1290	549	0.2985318108	4.496332518	20			0.204	28	-0.55	33.82
1117	GPC	409	0	48.8	27	1.807407407	6.2	0.12704918	0.2296296296	10.2	0.3777777778	102	41	2.487804878	6	0.3496332518	0	0.3496332518	1290	549	0.2985318108	4.496332518	20			0.204	56	-0.96	31.96
1117	GPC	409	0	48.8	27	1.807407407	6.2	0.12704918	0.2296296296	10.2	0.3777777778	102	41	2.487804878	6	0.3496332518	0	0.3496332518	1290	549	0.2985318108	4.496332518	20			0.204	112	-1.36	30.14

https://www.graphreader.com/
SITE USED TO GO FROM GRAPH TO DATA POINTS
use sampled curve, not inserted fix points output
used linear point interpolation, no post processing