	Worsening Feature (BUT) mproving eature THEN)	Weight of moving object	Weight of stationary object	Length of moving object	Length of stationary object	Area of moving object	Area of stationary object	Volume of moving object	Volume of stationary object	Speed	Force (Intensity)	Stress ar pressure	Shape	Stability of the object's camposition	Strength	Duration of action by moving object	Duration of action by stationary object	Temperature	Illum instion intensity	Use of energy by moving object	Use of energy by stationary object	Power	Loss of energy	Loss of substance	Loss of information	Loss of time	Quantity of substance	Reliability	Measurement accuracy	Manufacturing precision	Object affected harm ful factors	Object-generated harmful factors	Ease d manufacture	Ease of operation	Ease of repair	Adaptability or vesatility	Device complexity	Difficulty of detecting and measuring	Extent of automation	Productivity		The Classic Altschuller Contradiction Table
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	1	Segmentation
1	Weight of moving object	+		15, 8, 29,34		29, 17, 38, 34		29, 2, 40, 28		2, 8, 15, 38	8, 10, 18, 1	40	10, 14, 35, 40	1, 35, 19, 39	28, 27, 18, 40	5, 34, 31, 35	6,	29, 4, 38 19	, 1, 32 ³	5, 12, 34, 31	1	12, 36, 18, 31	6, 2, 34, 19	5, 35, 3, 31	10, 24, 35	10, 35, 20, 28	3, 26, 18, 31	1, 3, 11, 27	28, 27, 35, 2	8, 35, 26, 21	2, 21, 18, 2	22, 35, 31, 39	27, 28, 1, 36	85, 3, 2, 24	27, 28, 21	9, 5, 15, 8 ²⁶	i, 30, 36, 34	28, 29, 26, 32	26, 35 18, 19	35, 3, 24, 37	2	Taking Away
2	Weight of stationary object				10, 1, 29,		35, 30, 13,		5, 35, 14, 2		8, 10, 19, 1				28, 2, 10,		, 27, 19, 6	19, 32, 22 19,				15, 19, 18, 1						10, 28, 8, 3					28, 1, 9					25, 28, 17,		1, 28, 15,		Local Conditions
3	Length of moving object	8, 15, 29, 34		+		15, 17, 4		7, 17, 4, 35		13, 4, 8	17, 10, 4	1, 8, 35	l, 8, 10, 29	1, 8, 15, 34	8, 35, 29, 34	19	10	l, 15, 19	32 8	8, 35, 24		1, 35	7, 2, 35, 39	4, 29, 23, 10	1, 24	15, 2, 29	29, 35	10, 14, 29, 40	28, 32, 4	0, 28, 29, 37	1, 15, 17, 24	17, 15	1, 29, 17	15, 29, 35, 4	, 28, 10	4, 15, 1, 1, 16	, 19, 26, 24	35, 1, 26, 24	17, 24, 26, 16	14, 4, 28, 29	4	Asymmetry
4	Length of stationary object		35, 28, 40, 29		+		17, 7, 10, 40		35, 8, 2,14		28, 10	1, 14, 35	13, 14, 15, 7	39, 37, 35	15, 14, 28, 26		1, 10, 35 ³ ,	35, 38, 18	3, 25			12, 8	6, 28	10, 28, 24, 35	24, 26,	30, 29, 14		15, 29, 28	32, 28, 3	2, 32, 10	1, 18		15, 17, 27	2, 25	3	1, 35	1, 26	26		30, 14, 7, 26	5	Merging
5	Area of moving object	2, 17, 29, 4		14, 15, 18, 4				7, 14, 17, 4		29, 30, 4, 1 34	19, 30, 35, 1 2	0, 15, 36, 28	5, 34, 29, 4	11, 2, 13, 39	3, 15, 40, 14	6, 3	2	15, 16	32, 19, 13	19, 32	:	19, 10, 32, 18	15, 17, 30, 26	10, 35, 2, 39	30, 26	26, 4	29, 30, 6, 13	29, 9	26, 28, 32, 3	2, 32 23	2, 33, 28, 1	17, 2, 18, 39	13, 1, 26, 1 24	15, 17, 13, 19 16	, 13, 10, 1	15, 30 1	4, 1, 13	2, 36, 26, 18	14, 30, 28, 23	10, 26, 34, 2	6	Multi-functionality
6	Area of stationary object		30, 2, 14, 18		26, 7, 9, 39		•				1, 18, 35, 1 36	37		2, 38	40		2, 10, 19, 30 35	, 39, 38				17, 32	17, 7, 30	10, 14, 18, 39	30, 16	10, 35, 4, 18	2, 18, 40, 4	32, 35, 40, 4	26, 28, 32, 3			22, 1, 40	40, 16	16, 4	16	15, 16 1	, 18, 36	2, 35, 30, 18	23	10, 15, 17, 7	7	Nesting
7	Volume of moving object	2, 26, 29, 40		1, 7, 4, 35		1, 7, 4, 17		+		29, 4, 38, 1 34	15, 35, 36, 37		l, 15, 29, 4		0, 14, 15, 7	6, 35, 4		, 39, 10, 18 2,	13, 10	35		35, 6, 13, 18	7, 15, 13, 16	36, 39, 34, 10	2, 22	2, 6, 34, 10	29, 30, 7	14, 1, 40, 11	26, 28	25, 28, 2, 21 16	2, 21, 27, 35	17, 2, 40, 1	29, 1, 40	15, 13, 30, 12	10	15, 29	26, 1	29, 26, 4	35, 34, 16, 24	10, 6, 2, 34	4 8	Weight Compensation
8	Volume of stationary object		35, 10, 19, 14	19, 14	35, 8, 2, 14				+					40	9, 14, 17, 15		85, 34, 38	15, 6, 4				30, 6		10, 39, 35, 34		35, 16, 32 18	35, 3	2, 35, 16		15, 10, 25 ³⁴	4, 39, 19, 27	30, 18, 35, 4	35		1		1, 31	2, 17, 26		35, 37, 10, 2	9	Prior Counteraction
9	Speed	2, 28, 13, 38		13, 14, 8		29, 30, 34		7, 29, 34			13, 28, 15, 19	6, 18, 38, 40	35, 15, 18, 34	28, 33, 1, 18	3, 3, 26, 14	, 19, 35, 5	28	, 30, 36, 2 10,		, 15, 35, 38		19, 35, 38, 3 2	14, 20, 19, 35	10, 13, 28, 38	13, 26		10, 19, 29, 38	11, 35, 27, 28	28, 32, 1, 1 24	0, 28, 32, 1	, 28, 35, 23	2, 24, 35, 21	35, 13, 8, 1	32, 28, 13, 3 12	^{1, 2, 28,} 27 1	5, 10, 26	0, 28, 4, 34	3, 34, 27, 16	10, 18		10	Prior Action
10	Force (Intensity)	8, 1, 37, 18	18, 13, 1, 28	17, 19, 9, 36	28, 10	19, 10, 15	1, 18, 36, 37	15, 9, 12, 37	2, 36, 18, 37	13, 28, 15, 12	+	18, 21, 11	10, 35, 40, 34	35, 10, 21	35, 10, 14, 27	19, 2	35	i, 10, 21	1	9, 17, 10	l, 16, 36, 37	19, 35, 18, 37	14, 15	8, 35, 40, 5		10, 37, 36	14, 29, 18, 36	3, 35, 13, 21	35, 10, 23, 2 24	35	18	24	15, 37, 18, 1	l, 28, 3, 25 1	5, 1, 11	5, 17, 18, 26 20	5, 35, 10, 18	36, 37, 10, 19	2, 35	3, 28, 35, 37	11	Beforehand Compensation
11	Stress or pressure	10, 36, 37, 40	13, 29, 10, 18	35, 10, 36				6, 35, 10	35, 24	6, 35, 36	36, 35, 21	+	35, 4, 15, 10	35, 33, 2, 40	9, 18, 3, 40	19, 3, 27		, 39, 19, 2		4, 24, 10, 37		10, 35, 14	2, 36, 25	10, 36, 3, 37				10, 13, 19, 35	6, 28, 25	3, 35 2	22, 2, 37	2, 33, 27, 18	1, 35, 16	11	2	35 1	9, 1, 35	2, 36, 37	35, 24	10, 14, 35, 37	12	Equipotentiality
12	Shape	8, 10, 29, 40	15, 10, 26, 3	29, 34, 5, 4	13, 14, 10, 7	5, 34, 4, 10		14, 4, 15, 22	7, 2, 35	35, 15, 34, 18	15, 10, 37, 3 40	14, 15, 10, 14		33, 1, 18, 4	30, 14, 10, 40	14, 26, 9, 25	22	14, 19, 32 13,	15, 32 2,	6, 34, 14		4, 6, 2	14	35, 29, 3, 5		14, 10, 34, 17	36, 22	10, 40, 16	28, 32, 1	82, 30, 40 22	2, 1, 2, 35	35, 1	1, 32, 17, 28	32, 15, 26		1, 15, 29	28		15, 1, 32	17, 26, 34, 10	13	The Other Way Round
13	Stability of the object's composition	39	26, 39, 1, 40	13, 15, 1, 28	37	2, 11, 13	39	39	34, 28, 35, 40	18		2, 35, 40		•	17, 9, 15	13, 27, 10, 35	39, 3, 35, 23 3	5, 1, 32 32	3, 27, 16	13, 19	18 18 18	32, 35, 27, 31	14, 2, 39, 6	2, 14, 30, 40		35, 27	15, 32, 35		13	18 35	5, 24, 30, 18	35, 40, 27, 39	35, 19	32, 35, 30	35, 10, 3 16	5, 30, 34, 2, 2	, 35, 22, 26	35, 22, 39, 23	1, 8, 35	23, 35, 40, 3	14	Curvature Increase
14	Strength	1, 8, 40, 15	40, 26, 27, 1	1, 15, 8, 35	15, 14, 28, 26	3, 34, 40, 29	9, 40, 28	10, 15, 14, 7	9, 14, 17, 15	8, 13, 26, 14	10, 18, 3, 14				+	27, 3, 26	30	1, 10, 40 3	5, 19 1	9, 35, 10	35	10, 26, 35, 28	35	35, 28, 31, 40		29, 3, 28, 10	29, 10, 27	11, 3	3, 27, 16	3, 27	8, 35, 37, 1	15, 35, 22, 2	11, 3, 10, 32	^{32, 40, 25,} 2	7, 11, 3	15, 3, 32	, 13, 25, 28	27, 3, 15, 40	15	29, 35, 10, 14	15	Dynamics, Adjustability
15	Duration of action by moving object	19, 5, 34, 31		2, 19, 9		3, 17, 19		10, 2, 19, 30		3, 35, 5	19, 2, 16	19, 3, 27	14, 26, 28, 25	13, 3, 35	27, 3, 10	+	19	, 35, 39 2, 1	9, 4, 35	8, 6, 35, 18		19, 10, 35, 38		28, 27, 3, 18	10	20, 10, 28, 18	3, 35, 10, 40	11, 2, 13	3	3, 27, 16, 23 40	28	21, 39, 16, 22	27, 1, 4	12, 27 2	0, 10, 27	l, 35, 13	0, 4, 29, 15	19, 29, 39, 35	6, 10	35, 17, 14, 19	16	Partial, Overdone or Excessive Action
16	Duration of action by stationary object		6, 27, 19, 16		1, 40, 35				35, 34, 38					39, 3, 35, 23			+ 19	, 18, 36, 40				16		27, 16, 18, 38				40	10, 26, 24	1	17, 1, 40, 33	22	35, 10	1	1	2		25, 34, 6, 35	1	20, 10, 16, 38	17	Transition into New Dimension
17	Temperature	36,22, 6, 38	22, 35, 32	15, 19, 9	15, 19, 9	3, 35, 39, 18	35, 38	34, 39, 40, 18	35, 6, 4	2, 28, 36, 30	35, 10, 3, 21	15, 39, 19, 2	14, 22, 19, 32	1, 35, 32	10, 30, 22, 40	19, 13, 39	9, 18, 36, 40	32,	30, 21, 1 16	9, 15, 3, 17		2, 14, 17, 25	21, 17, 35, 38	21, 36, 29, 31		35, 28, 21, 18	3, 17, 30, 39	19, 35, 3, 10	32, 19, 24	24 23	2, 33, 35, 2	22, 35, 2, 24	26, 27	26, 27 4	, 10, 16	2, 18, 27 2	, 17, 16	3, 27, 35, 31	26, 2, 19, 16	15, 28, 35	18	Vibration
18	Illumination Intensity	19, 1, 32	2, 35, 32	19, 32, 16		19, 32, 26		2, 13, 10		10, 13, 19	26, 19, 6		32, 30	32, 3, 27	35, 19	2, 19, 6	33	, 35, 19	•	82, 1, 19	32, 35, 1, 15		13, 16, 1, 6	13, 1	1,6	19, 1, 26, 17	1, 19		11, 15, 32	3, 32	15, 19	35, 19, 32, 39	19, 35, 28, 26	28, 26, 19	10		, 32, 13	32, 15	2, 26, 10	2, 25, 16	19	Periodic Action
19	Use of energy by moving object	12,18,28,3 1		12, 28		15, 19, 25		35, 13, 18		8, 35	16, 26, 21, 2	23, 14, 25			5, 19, 9, 35	28, 35, 6, 18	1	14 .	15, 19	•		6, 19, 37, 18	12, 22, 15, 24	35, 24, 18, 5		35, 38, 19, 18	34, 23, 16, 18	19, 21, 11, 27	3, 1, 32				28, 26, 30	19, 35	15, 17, 1 28	5, 17, 13, 2, 16	, 29, 27, 28	35, 38	32, 2	12, 28, 35	20	Continuity of Useful Action
20	Use of energy by stationary object		19, 9, 6, 27								36, 37			27, 4, 29, 18	35				, 2, 35, 32		•			28, 27, 18, 31				10, 36, 23				19, 22, 18						19, 35, 16, 25		1,6	21	Rushing Through
21	Power	31	19, 26, 17, 27	37			17, 32, 13, 38		30, 6, 25	15, 35, 2	26, 2, 36, 35	22, 10, 35	29, 14, 2, 40	35, 32, 15, 31	26, 10, 28	19, 35, 10, 38	16 2,	14, 17, 25 16	i, 6, 19 ¹	6, 6, 19, 37		•	10, 35, 38	28, 27, 18, 38	10, 19	35, 20, 10, 6	4, 34, 19	19, 24, 26, 31	32, 15, 2				26, 10, 34	26, 35, 10 3	5, 2, 10, 34 1	9, 17, 34 20), 19, 30, 34	19, 35, 16	28, 2, 17	28, 35, 34	22	Convert Harm into Benefit
22	Loss of energy		19, 6, 18, 9		0, 30, 1		18				36, 38			14, 2, 39, 6	26			9, 38, 7	13, 32, 15			3, 38	•	35, 27, 2, 37		10, 18, 32, 7		11, 10, 35			1, 22, 35, 2	22			2, 19		7, 23	35, 3, 15, 23	2	28, 10, 29, 35	23	Feedback
23	Loss of substance	35, 6, 23, 40	35, 6, 22, 32	14, 29, 10, 39	10, 28,24	35, 2, 10, 31	10, 18, 39, 31	1, 29, 30, 36	3, 39, 18, 31	10, 13, 28, 1 38	4, 15, 18, 40	3, 36, 37, 10	19, 35, 3, 5	2, 14, 30, 40	35, 28, 31, 40	28, 27, 3, 18	7, 16, 18, 21 38	36, 39, 31 1,	6, 13	5, 18, 24, 2 5	8, 27, 12, 31	28, 27, 18, 38	35, 27, 2, 31	•		10	6, 3, 10, 24	10, 29, 39, 35	16, 34, 31, 3 28	5, 10, 24, 31	3, 22, 30, 40	10, 1, 34, 29	15, 34, 33	32, 28, 2, 2 24	35, 34, 27	15, 10, 2 35	i, 10, 28, 24	35, 18, 10, 13	35, 10, 18	28, 35, 10, 23	24	Mediator
24	Loss of information		10, 35, 5	1, 26		30, 26	30, 16		2, 22	26, 32						10	10		19			10, 19	19, 10					10, 28, 23			22, 10, 1		32	27, 22				35, 33	35	13, 23, 15	25	Self Service
25	Loss of time	10, 20, 37, 35	10, 20, 26, 5	15, 2, 29	30, 24, 14, 5	26, 4, 5, 16	10, 35, 17, 4	2, 5, 34, 10	35, 16, 32, 18				.,	33, 3, 22, 3	18	18	8, 20, 10, 35 16	29,21, 1, 18	19, 26, 3 17	5, 38, 19, 18	1	35, 20, 10, 6	10, 5, 18, 32	35, 18, 10, 39	24, 26, 28, 32	+	35, 38, 18, 16	10, 30, 4	24, 34, 28, 2 32	18 3	3, 10, 34	39	35, 28, 34, 4	34		35, 28	6, 29	18, 28, 32, 10	24, 28, 35, 30		26	Copying
26	Quantity of substance	35, 6, 18, 31	27, 26, 18, 35	18			2, 18, 40, 4			35, 29, 34, 28	35, 14, 3	10, 36, 14, 3	35, 14	15, 2, 17, 40	14, 35, 34, 10		3, 35, 31 3	17, 39		4, 29, 16, 18					24, 28, 35			~0	13, 2, 28				29, 1, 35, 27	35, 29, 25, 2 10			, 13, 27, 10	3, 27, 29, 18	8, 35	13, 29, 3, 27	27	Cheap Short-living Objects
27	Reliability		3, 10, 8, 28	15, 9, 14, 4	11	16	32, 35, 40, 4		2, 35, 24	20	, 28, 10, 3	10, 24, 35, 19	35, 1, 16, 11		11, 28	, 35, 3, 25	40	35, 10 11,		1, 11, 27, 19	36, 23	21, 11, 26, 31		59		10, 30, 4	21, 28, 40, 3	+	32, 3, 11, 23		17, 35, 2, 40	26		27, 17, 40	1, 11	24			11, 13, 27	38	20	Replace Mechanical System with Fields
28	Measurement accuracy					-	26, 28, 32, 3			2.4		6, 28, 32	6, 28, 32	32, 35, 13	28, 6, 32	28, 6, 32	6, 26, 24	19, 28, 24 6,	1, 32	3, 6, 32		3, 6, 32	10, 31, 17	10, 16, 31, 28		24, 34, 28, 32	2, 6, 32	5, 11, 1, 23	•				6, 35, 25, 18	1, 13, 17, 1 34	32, 13, 11	13, 35, 2	7, 35, 10, 34	26, 24, 32, 28		10, 34, 28, 32		Fluid System
29	Manufacturing precision	18	28, 35, 27, 9	10, 28, 29, 37	2, 32, 10				25, 10, 35	10, 28, 32	30		32, 30, 40			3, 27, 40				32, 2			13, 32, 2	35, 31, 10, 24		32, 26, 28, 18		11, 32, 1			6, 28, 10, 36	4, 17, 34, 26		23	25, 10		6, 2, 18		26, 28, 18, 23	10, 18, 32, 39	30	Flexible Film or Thin Membranes
30	Object affected harmful factors	22, 21, 27, 39	24	17, 1, 39, 4	1, 10	28	27, 2, 39, 35	35	27	28	18			18	1	28	17, 1, 40, 22 33	2	13	27	37	19, 22, 31, 2	2	40	22, 10, 2	33, 10, 34	31	27, 24, 2, 40	26	18	+		24, 35, 2	2, 25, 28, 39	5, 10, 2 3	5, 11, 22, 22 31	t, 19, 29, 40	22, 19, 29, 40	33, 3, 34	22, 35, 13, 24		Porous Materials
31	Object-generated harmful factors		35, 22, 1, 39			17, 2, 18, 39	22, 1, 40		30, 18, 35, 4	35, 28, 3, 23	35, 28, 1, 40	2, 33, 27, 18	35, 1	35, 40, 27, 39	15, 35, 22, 2		1, 39, 16, 2. 22						21, 35, 2, 22	10, 1, 34				24, 2, 40, 39		4, 17, 34, 26		•				1	9, 1, 31	2, 21, 27, 1	2	22, 35, 18, 39		Optical Property Changes
32	Ease of manufacture	16	1, 27, 36, 13	1, 29, 13, 17	15, 17, 27	**		13, 29, 1, 40		35, 13, 8, 1	35, 12	35, 19, 1, 37	1, 28, 13, 27	11, 13, 1	l, 3, 10, 32	27, 1, 4	35, 16 2	, 26, 18 28,	24, 27, 2	8, 26, 27, 1	1, 4	27, 1, 12, 24		15, 34, 33	32, 24, 18, 16	4	35, 23, 1, 24		1, 35, 12, 18		24, 2		+ 2	2, 5, 13, 16 35				6, 28, 11, 1	8, 28, 1	35, 1, 10, 28	33	Homogenity
33	Ease of operation		6, 13, 1, 25	1, 17, 13, 12		1, 17, 13, 16	18, 16, 15, 39	15	4, 18, 39, 31	18, 13, 34	28, 13 35	2, 32, 12	15, 34, 29, 28	32, 35, 30	20	9, 3, 8, 25	1, 16, 25 26		24	l, 13, 24		35, 34, 2, 10	2, 19, 13	28, 32, 2, 24	22	4, 28, 10, 34	12, 35	40	25, 13, 2, 34	23	1, 25, 28, 39		2, 5, 12	•	2, 26, 1, 1 32	16	26, 12, 17		1, 34, 12, 3	15, 1, 28	34	Rejection and Regeneration
34	Ease of repair	11	2, 27, 35, 11	25			16, 25	25, 2, 35, 11	1	34, 9	1, 11, 10	13	1, 13, 2, 4	2, 35	11, 1, 2, 9	11, 29, 28, 27	1	4, 10 15	, 1, 15	5, 1, 28, 16		15, 10, 32, 2	19	27				11, 10, 1, 16			15, 10, 2, 16		1, 35, 11, 10	15	+ 7	, 1, 4, 10	5, 1, 13, 11		34, 35, 7, 13	1, 32, 10		Changing Properties
35	Adaptability or versatility		10		1, 35, 16		15, 16	15, 35, 29		35, 10, 14	15, 17, 20						2, 16 27	2, 3, 35 6, 2	2, 26, 1	9, 35, 29, 13		19, 1, 29	10, 13, 1	15, 10, 2, 13		35, 28		35, 13, 8, 24			5, 11, 32, 31		-,,	10	16, 7, 4	+ 15	i, 29, 37, 28		27, 34, 35	35, 28, 6, 37	36	Phase Transition
36	Device complexity	36	39	1, 19, 26, 24		14, 1, 13, 16	6, 36				26, 16	19, 1, 35	29, 13, 28, 15	19	2, 15, 26	10, 4, 28, 15		17, 13 24		7, 2, 29, 28		20, 19, 30, 1 34	2	29		6, 29	13, 3, 27, 10		2, 26, 10, 34		2, 19, 29, 40	19, 1	13	27, 9, 26, 24	1, 13 2	9, 15, 28, 37	+	15, 10, 37, 28	15, 1, 24	12, 17, 28	37	Thermal Expansion
37	Difficulty of detecting and measuring		6, 13, 28, 1	16, 17, 26, 24	26	2, 13, 18, 17	2, 39, 30, 16	29, 1, 4, 16	2, 18, 26, 31	3, 4, 16, 35	10, 28, 40, 19	32	27, 13, 1, 39	11, 22, 39, 30	27, 3, 15, 28	19, 29, 39, 25	25, 34, 6, 3, 35	27, 35, 16 2,	24, 26	35, 38 1	.5, 55, 10	18, 1, 16, 10	19	24	22	18, 28, 32, 9	18	27, 40, 28, 8	28		2, 19, 29, 28	2, 21	5, 28, 11, 29	2, 5		1, 15	i, 10, 37, 28	•	34, 21	35, 18		Use Strong Oxidizers
38	Extent of automation	35	28, 26, 35, 10	28		17, 14, 13		35, 13, 16				13, 35	15, 32, 1, 13	18, 1	25, 13	6, 9		5, 2, 19 8,		2, 32, 13		28, 2, 27			35, 33	24, 28, 35, 30		11, 27, 32			2, 33			l, 12, 34, 3				34, 27, 25	+	5, 12, 35, 26	39	Inert Environment
39	Productivity	35, 26, 24, 37	28, 27, 15, 3	18, 4, 28, 38	30, 7, 14, 26	10, 26, 34, 31	10, 35, 17, 7	2, 6, 34, 10	35, 37, 10, 2	2	18, 15, 10, 36	10, 37, 14	14, 10, 34, 40	35, 3, 22, 39	29, 28, 10, 18	35, 10, 2, 18	0, 10, 16, 35 38	, 21, 28, 26, 10	17, 19, 3 1	5, 10, 38, 19	1	35, 20, 10	28, 10, 29, 35	28, 10, 35, 23	13, 15, 23		35, 38	1, 35, 10, 38	1, 10, 34, 1 28	8, 10, 32, 23 1	2, 35, 13, 24	35, 22, 18, 39	35, 28, 2, 24	l, 28, 7, 10 ¹	32, 10, 1 25	, 35, 28, 12 37	2, 17, 28, 24	35, 18, 27, 2	5, 12, 35, 26	+	40	Composite Materials