Duroplast

1. All the values reported in the tables are the result of tests carried out in our laboratories under controlled temperate and humidity (23C - 58% rh) in given conditions of use for a relatively limited time. The technical designer should consider to use an adequate safety factor for particularly heavy conditions of use.

2. "Max. limit static load" means the value over which the applied load
to the element, in certain conditions of use, may cause material deformation. To establish the admissible load on the element, designers should consider an appropriate safety factor according to specific
conditions of use to vibrations, and dynamic loads.

Chemical Agents Resistance	Duroplast (PF) 23C	Painted Duroplast Clean 23C
Alcohol (methanol, ethanol, isopropanol, ...)	●	●
Boiling water	❒	❒
Edible Oils	●	●
Esters (methyl acetate, ethyl acetate, ...)	●	N/A
Ether (ethyl eter, oil ether, ...)	●	N/A
Fat	●	N/A
Ketons (acetone)	●	●
Mineral oils	●	●
Petrol, gas oil, benzene	●	●
Strong acids (hydrolic, nitric, sulphuric, ...)	▲	▲
Strong alkali	▲	▲
Toluene	●	❒ (milk effect)
Water	●	●
Weak acids (butyric, oleic, lactic, ...)	❒	good
Weak alkali	❒	good
Xylene	●	❒ (milk effect)

●	=	Good Resistance
❒	=	Medium Resistance (limited use according to working conditions)
▲	=	Low Reistance (should not be used)
N.B.	=	blanks stand for data not available

Delrin Polyacetal 150		
Mechanical Properties	ASTM Method	ValuesPolyac. 150
Density	D792	1,42 g/cm²
Tensile strength @ yield	D628	
-55°C		101 N/mm²
-40°C		-N/mm²
12°C		69 N/mm²
70°C		48 N/mm²
100°C		36 N/mm²
122°C		26 N/mm²
Elongation @ break	D638	
-55°C		0,38%
-40°C		- %
12°C		75%
70°C		230%
100°C		>260%
122°C		>260%
Tensile E Modulus	D638	3100 N/mm²
Shear Strength	D732	66 N/mm²
Flexural Modulus	D790	
-55°C		3650 N/mm²
-40°C		2620 N/mm²
-23°C		1550 N/mm²
-70°C		895 N/mm²
-100°C		620 N/mm²
Flexural fatigue endurance limit	D671	32 N/mm²
Compressive stress	D695	
1% deformation		36 N/mm²
10% deformation		124 N/mm²
Izod impact strength	D256	
unnotched		no break J/m
-40°C		96 J/m
23°C		123 J/m
Tensile impact strength	D1822	350 KJ/m²
Deformation under load	D621	
(14N/mm² @ 50°C)		0,5%
Hardness, Rockell	D785	M94
		R120
Water absorption	D570	
24 hours immersion		0,25%
equilibrium 50% R.H.		0,22%
equilibrium, continuous immersion		0,90%

Delrin Polyacetal 150		
Mechanical Properties	ASTM Method	Values
Coefficient of dynamic friction against steel	D1894	
no lubricant	-61T	0,10 - 0,30
water lubricated		0,10 - 0,20
oil lubricated		0,05 - 0,10
against Brass		0,15
against Aluminium		0,15
against Polyacetal		0,35
THERMAL PROPERTIES		
Melting point	D2133	175°C
Deflection temperature under flexural load	D648	
1,8 N/mm²		38°C
0,5 N/mm²		172°C
Thermal conductivity		0,37 W/mK
Specific heat		1,47 Kj/kgK
Coefficient of linear thermal expansion	D696	
-40°C - 30°C		10,4 $1x10^{-5}$°C
30°C - 60°C		12,1 $1x10^{-5}$°C
60°C - 105°C		13,7 $1x10^{-5}$°C
105°C - 150°C		14,9 $1x10^{-5}$°C
Flamability	UL94	HB
Maximum continuous use temperature		
in air		90°C
in water		65°C
Maximum intermittent use temperature		
in air		150°C
in water		80°C
Minimum continuous use temperature		-40°C
ELECTRICAL PROPERTIES		
Volume resistivity	D257	10^{-25} ohm cm
Surface resistivity	D257	10^{-25} ohm
Dielectric strength short time	D149	20 kV/mm
Dielectric constant 10-2HZ - 106HZ	D150	3,7
Dissipation factor (1mm sheet)	D150	
100HZ		
1kHZ		
10kHZ		
1MHZ		0,005

Plastics and Rubbers														
	Tensile Strength PSI	Elongation %	Max. Continuous °C	Service Temperture Min. °C	Resistance to Weak Acids	Resistance to Strong Acids	Resistance to Weak Alkalis	Resistance to Strong Alkalis	Resistance to Organic Solvents	Resistance to Oils and Greases	Resistance to Sunlight	Shore A Hardness	Dielectric Constant Volts/ mm	Tear Strength N/m
Low-density Polyethylene	600-2300	90-800	50	-30	Fair	Fair except for oxidising acids	Good	Good	Resistant below 60°C	Attcked by some	Poor if unprotected	-	-	-
High-density Polyethylene	3100-4500	10-150	60	-65	Good	Attcked by some	Good	Good	Unaffected below 80°C	Limited	Crazes if unprotected	-	-	-
Standard PVC	700-2000	700-2000	50	-35	Limited	Limited	Limited	Limited	Poor	Limited	Good	-	-	-
Polypropylene	3900-5000	50-600	110	-25	Good	Poor	Good	Good	Unaffected below 80°C	Poor	Poor	-	-	-
EVA	1750-2500	700-800	45	-20	Good	Attacked by oxidising acids	Good	Good	Poor	Poor	Poor degrades slowly	-	-	-
PA6,6 plyamide (Nylon) 66	7600	50-300	120	-80	Poor	Poor	Poor	Poor	Attacked by some	Attacked by some	Discolours slightly	-	-	-
PA6 plyamide (Nylon) 6	5800	50-250	100	-70	Poor	Poor	Poor	Poor	Attacked by some	Attacked by some	Discolours slightly	-	-	-
Polystyrene	3000-7000	1-60	65	-20	Good	Attacked by oxidising acids	Good	Good	Soluble in some	Attacked by some	Some attack	-	-	-
Thermoplastic Rubber	980-1100	980-1100	135	-40	Excellent	Good	Excellent	Good	Attacked by some	Attacked by some	Good	-	-	-
Silicone Rubber	8,5 Mpa	230	200	-60	Poor	Poor	Fair	Fair	Poor	Attacked	Good	-	-	-
Flexible PVC	2971	300% min	66	-29	Good	Poor	Good	Poor	Poor	Poor	Fair	76-80	7442	35023
POM-Polyacetal	8800	50-70	80	-40	Poor	Poor	Good	Good	Soluble in some	Good	Fair	-	-	-
EPDM	17,6-21 (Mpa)	500-800	121	-37,2	Good	Good	Fair	Fair	Attcked by some	Poor	Good	-	-	-
High-Temp PVC	16MNm-2	225-275	200	-25	Good	Good	Good	Fair	Poor	Poor	Fair	83-93	7442	31521

Wixroyd®

Technopolymer

Chemical Agents and Solvents	Polymide (PA)			Polypropylene (PP)			NBR Rubber			Thermoplastic Elastomer (TP)			Acetal Resin (POM)		
	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C
Acetic acid		Sol. 10	▲		40	●			▲			?		Sol. 20	▲
Acetone		100	●		10	●			▲			●			●
Acrylonitrile		100	●						▲			❒			
Alimentary Oils			●		10	●			●		Upto60°C	●			●
Aluminium Chloride		Sol. 10	●		10	●		Sol.	●			●			
Aluminium Sulphate		Sol. 10	●		10	●		Sol.	●			●			
Amonia		Sol. 10	●		Conc.	●		Sol.	❒			❒			
Amonia - gaseous			❒			●			●			❒			
Ammonium chloride		Sol. 10	●			●		Sol.	●			●		Sol. 10	●
Amyl alcohol		100	●			●			●			●			●
Aniline		100	●			●			▲			▲			●
Beer		Sol. 10	●			●			●			●			●
Benzoic acid		Sol.Sat.	❒		Sat.	●		Sol.	❒		Upto60°C	❒			
Benzol/benzene		100	●			▲			▲			▲			●
Boiling water		Swell.	❒			●			❒			❒			
Boric acid		Sol. 10	●		Sat.	●		Sol.	●			●			
Butter			●			●			●			●			●
Butyl acetate		100	●			●						❒			
Butyl alcohol		100	●			●			●			●			●
Calcium chloride		Sol. 10	●		Sol. 50	●		Sol.	●			●			●
Carbon disulphide		100	●			●			▲			▲			
Carbon tetrachloride			●			▲			▲			▲			●
Caustic soda 10%		Sol.5,10	●		Sol.5,10	●		Sol.5,10	❒			●		Sol. 10	●
Caustic sode 50%		Sol. 50	●		Sol. 50	●		Sol. 50	▲			●			
Citric acid		Sol. 10	●		10	●		Sol.	●		Upto60°C	●			●
Cloroform		100	▲			▲			▲			▲			
Copper sulphate		Sol. 10	●			●		Sol.	●			●			●
Dichloropan						❒						▲			
Distilled water			●			●			●			●			●
Edible fat			●						●			●			●
Ethyl acetate		100	●			●			▲			❒			●
Ethyl alcohol		96	●		96	●			❒			●			●

Chemical Agents and Solvents	Polymide (PA)			Polypropylene (PP)			NBR Rubber			Thermoplastic Elastomer (TP)			Acetal Resin (POM)		
	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C
Ethyl chloride		100	●			▲			●						
Ethyl ether		100	●			●			❒			▲			
Ethylene glycol			●			●			●			❒			
Ferric chloride		Sol. 10	●			●		Sol.	●			●			●
Formaldehyde (formalin)		Sol. 30	●		Sol. 40	●		Sol. 40	❒			▲			
Formic acid		Sol. 10	●		Sol. 10	●		Sat.	▲		Upto60°C	●		100	▲
Freon 11						❒			●						●
Freon 12		Liq.	●			❒			●						●
Freon 13						❒			●						●
Gas oil			●			●			●			▲			●
Glycerine			●			●			●			▲			
Glycol butylene		100	●						●			❒			
Hydrochloric acid		Sol. 10	●		Sol. 30	●		Sol. 10	❒		Upto60°C	●		Sol. 10	▲
Hydrofluoric acid		Sol. 40	●		Sol. 40	●		50	▲			❒			▲
Hydrogen peroxide		Sol. 3	●		Sol. 30	●		Sol. 80	▲			❒		Sol. 90	▲
Iodine tincture-alcoholic			▲			●						●			
Isopropyl alcohol			●			●			❒			●			●
Kerosene			●			❒			●			▲			●
Lactic acid		Sol. 10	●		Sol. 20	●		Sol.	●			●			●
Linseed oil			●			●			●		Upto60°C	●			●
Magnesium chloride		Sol. 10	●		Sol.Sat.	●		Sol.	●		Upto60°C	●			●
Mercuric chloride		Sol. 6	▲			●						●			
Mercury			●			●			●			●			
Methyl acetate		100	●									●			
Methyl alcohol		100	●		100	●			❒			❒			●
Methyl ethyl ketone			●			❒			▲			●			▲
Methylene chloride		100	●			❒			▲			▲			
Milk			●			●			●			▲			●
Mineral oil			●			●			●			●			●
Nitric acid		10	▲		Sol. 10	●		Sol. 10	❒		Upto60°C	●		Sol. 10	▲

Chemical Agents and Solvents	Polymide (PA)			Polypropylene (PP)			NBR Rubber			Thermoplastic Elastomer (TP)			Acetal Resin (POM)		
	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C
Oil			●			●			●			●			●
Oil ether			●			●			●			▲			●
Oils for transformers			●			●			●			▲			●
Oleic acid		100	●	Sol.		●			●		Upto60°C	●			●
Paraffin oil			●			●			●		Upto60°C	●			
Petrol			●			❒	Swell.		❒		Upto60°C	●			●
Petrol vapor			●	Swell.		❒			❒			▲			▲
Phenol		Sol.	▲			●			▲			▲			▲
Phosporic acid		Sol. 10	▲		Sol. 85	●		Sol. 20	❒			▲		Sol. 10	▲
(Caustic Potash) Potassium hydroxide 50%		Sol. 50	❒		Sol. 50	❒		Sol. 50	▲		Upto60°C	●			
(Caustic Potash) Potassium hydroxide 10%		Sol.5,10	●		Sol.5,10	●		Sol.5,10	❒			●		Sol. 10	❒
Potassium nitrate		Sol. 10	●		Sat.	●			●			●			
Sea, river and drinkable water			●			●			●			●			●
Silicon oil			●			●			●						
Silver nitrate			●		Sol. 20	●		Sol.	❒			●			
Soap solution		Sol.	●		Sol.	●		Sol.	●			●			●
Sodium carbonate		Sol. 10	●		Sol.Sat.	●		Sol.	●			●			●
Sodium chloride		Sol. 10	●		Sol.Sat.	●		Sol.	●			●			●
Sodium hypochlorite		Sol.	●		Sol. 20	●		Sol. 10	▲			●		Sol. 5	▲
Sodium nitrate		Sol. 10	●		Sol.	●			●			●			
Sodium silicate			●			●		Sol.	●			●			
Sodium sulphate		Sol. 10	●			●		Sol.	●			●			●
Steam			●			●			❒			●			
Sulphuric acid		Sol. 10	●		98	●		Sol. 20	❒		Upto60°C	●		Sol. 10	▲
Tartaric acid			●		Sol. 10	●		Sol.	●		Upto60°C	●			●
Tetralin			●			▲			▲			▲			
Toluol/toluene			●			❒			▲			▲			●
Trichloroethylene			❒			▲			▲			▲			

Chemical Agents and Solvents	Polymide (PA)			Polypropylene (PP)			NBR Rubber			Thermoplastic Elastomer (TP)			Acetal Resin (POM)		
	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C	notes	conc.%	23C
Unleaded petrol			●	Swell.		❒	Swell.		❒			▲			●
Vaseline			●			●			●			❒			
Vinegar						●			❒			●			
Whisky			●			●			●			●			●
Wine			●			●			●			●			●
Xiyol			●			▲			▲			▲			●
Zinc chloride		10	❒	Sol. 20		●	Sol.		●			●			●

Conc.	=	concentration
Sol.	=	solution
Liq.	=	liquid
Sat.	=	saturated
Swell.	=	swelling
●	=	good resistance
❒	=	fair resistance (limited use according to working conditions)
▲	=	poor resistance (should not be used)
N.B.	=	blanks stand for data not available

Disclaimer: While every effort has been made to ensure the accuracy of the data, Wixroyd shall have no liability for any loss or damage suffered by any party, caused directly or indirectly, by the use of this data. If accuracy of such information is critical please check with the relevant institution or body.

Austenitic Stainless Steel

Austenitic steels are non-magnetic and it is not possible to harden them by heat treatment. The only method of hardening these steels is through cold forming or deformation when strain hardening takes place rapidly. The steel can be restored to a fully softened condition by annealing, sometimes referred to as solution treatment.

Type AISI 303 S21 (form EN58AM)

Colour Code: White (Austenitic - non magnetic). Free machining quality (contains sulphur). Good corrosion resistance and weldability is fair, but oxy-acetylene is not generally recommended. Can be cold formed but severe sharp corner bends should be avoided. Typical application - Repetitive machining, Automatics etc.

Type AISI 304 S15 (form EN58E)

Colour Code: Yellow (Austenitic - non magnetic). General purpose
stainless, machineability is fair, has good general corrosion resistance, weldability is good. (Oxy-acetylene is not generally recommended.)
Cold forming is very good: also has good polishing qualities. Non-magnetic when annealed, slightly magnetic when cold worked. Typical application - Suitable for General Engineering, Hospital, Laundry etc.

CType AISI 316 S16 (form EN58J)

Colour Code: Red (Austenitic - non-magnetic). High corrosion
resistance, especially salt water/acid. Machineability fair. Weldability good. Cold forming good. Non-magnetic when annealed, slightly magnetic when cold worked.

A	=	Good Resistance
B	=	Medium Resistance
C	=	Low Reistance
N/R	=	Not Recommended
N/A	=	Information not available

Chemical Agent	Stainless Steel	
	Grade 316	Grade 303
Acetaldehyde	A	A
Acetic Acid	A	A
Acetone	A	A
Acetylene Gas	A	A
Aluminium Chloride	C	C
Ammonia, aqueous liquid	A	A
Ammonium Chloride	A	B
Anlline	A	A
Benzene (Benzol)	A	A
Borax Solutions	A	A
Butane	A	A
Butyl Acetate	A	A
Butyl Alcohol	A	A
Calcium Chloride	A	B
Calcium Hydroxide	A	A
Carbon Tetrachloride	A	A
Chloroform	A	A
Chromic Acid	B	C
Citric Acid	A	A
Cyclohexane	A	A
Diesel Oil	A	B
Ethayl Acetate	A	A
Ethyl Alcohol	A	A
Ethylene Glycol	A	A
Ferric Chloride	B	C
Formic Acid	A	B
Freon 1	B	B
Freon 21	N/A	N/A
Freon 22	N/A	N/A
Gasoline	A	A
Glycerine	A	A
Hydrogen Gas	N/A	N/A

Chemical Agent	Stainless Steel	
	Grade 316	Grade 303
Hydrogen Peroxide	A	B
Hydrogen Sulphide	A	B
Kerosene	A	A
Lye	A	A
Lubricating Oils SAE	A	A
Magnesium Chloride	A	B
Magnesium Sulphate	A	A
Methane	A	A
Methyl Alcohol	A	A
Motor Oil	A	A
Naphtha	A	A
Nitric Acid	A	A
Phosphoric Acid	A	A
Potassium Dichromate	A	A
Potassium Hydroxide	A	A
Sodium Carbonate	A	A
Sodium Hydroxide	A	A
Sodium Hypochloride	A	B
Sodium Sulphate	A	A
Steam	A	A
Stearic Acid	A	A
Sulphur Dioxide Gas	B	B
Sulphuric Acid	A	C
Toluene	N/A	N/A
Trichloroethylene	A	A
Turpentine	A	A
Vegetable Oils	A	A
Vinyl Acetate	N/A	N/A
Water	A	A
Xylene	N/A	N/A
Zinc Chloride	B	C

Austenitic Stainless Steel Fasteners

Stainless steel fasteners are specified in BS EN ISO 3506.

Chemical Compositions

The chemical compositions of austenitic stainless steel fasteners with the designations A1, A2 & A4 are shown in table 1.

Table 1 - Chemical Compositions for Austenetic Stainless Steel Fasteners

Grade	Chemical Composition (% maxima unless stated)									Types Included
	C	Si	Mn	S	P	Cr	Mo	Ni	Cu	
A1	0.12	1	6.5	0.15-0.35	0.20	16-19	0.7	5-10	1.75-2.25	303, 1.4305
A2	0.1	1	2	0.03	0.05	15-20	-	8-19	4	304,349S17 (BS3111) 1.4567
A4	0.08	1	2	0.03	0.045	16-18.5	2-3	10-15	1	316,396S17 (BS3111)

Mechanical Properties

Table 2 - Mechanical Properties for A1, A2 and A4 Austenitic Stainless Steel Bolts, Screws, Studs and Nuts

	Bolts, Screws and Studs				Nuts
Property Class	Diameter Range	Tensile Strength R_m (Nmm^{-2})	0.2% Proof Stress $R_{p0.2}$ (Nmm^{-2})	Elongation A (mm)	Stress under Proof Load S_p (Nmm^{-2})
50 Annealed	≤M39	500	210	0.6d	500
70 Cold Drawn	≤M24	700	450	0.4d	700
80 Hard Cold Drawn	≤M24	800	600	0.3d	800

Notes

The most common & readily available supply condition is property class 70, which represents a "cold drawn" for the bar stock from which the fasteners are made.

Wixroyd® Conversion Tables

Temperature Conversions

To convert from:	To:	Substitute in Formula:
Degrees Celcius	Degrees Fahrenheit	(°C x 9/ 5) +32
Degrees Celcius	Kelvin	(°C + 273,16)
Degrees Fahrenheit	Degrees Celcius	(°F-32) x 5/ 9
Degrees Fahrenheit	Degrees Rankin	(°F + 459,69)

Torque Conversions

To obtain: Muliply Number of:	Newton Metres	Kilogram Force Metres	Foot Pounds	Inch Pounds
Newton Metres	1	0,1020	0,7376	8,651
Kilogram Force Metres	9,807	1	7,233	86,80
Foot Pounds	1,356	0,1383	1	12,00
Inch Pounds	0,1130	0,01152	0,08333	1

Force Conversions

To obtain: Multiply Number of:	Kilonewtons	Kilogram Force	Pound Force	Poundals
Kilonewtons	1	102,0	224,8	7233
Kilogramme Force	0,009807	1	2,205	70,93
Pound Force	0,004448	0,4536	1	32,17
Poundals	0,0001383	0,01410	0,03108	1

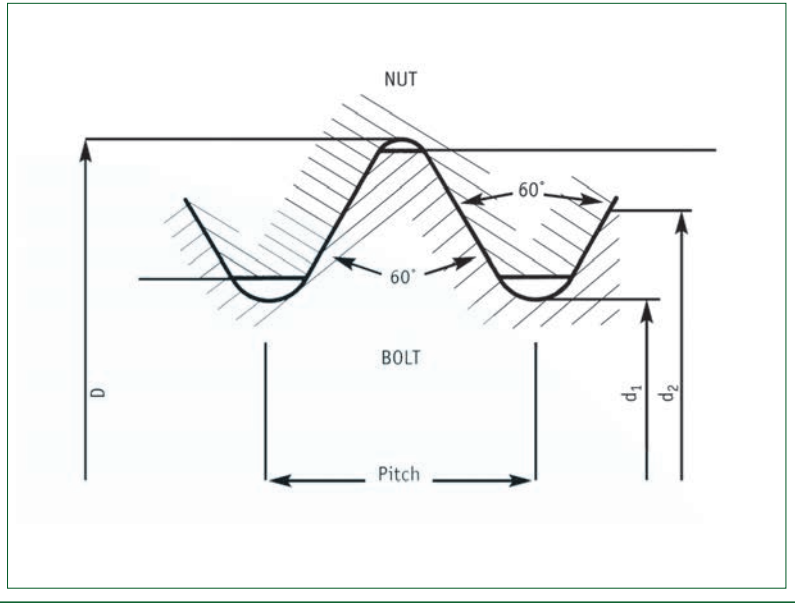
Density Conversions

To obtain: Multiply	Grams per Millilitre	Kilograms per Cubic Metre	Pounds per Cubic Foot	Pounds per Cubic Inch
Grams per Millimetre	1	1000	62,43	0,03613
Kilograms per Cubic Metre	0,001000	1	0,06243	0,00003613
Kilograms per Cubic Foot	0,01602	16,02	1	0,0005787
Pounds per Cubic Inch	27,68	27,680	1728	1

Length Conversions

To obtain: Multiply Number of:	Metres	Inches	Feet	Millimetres	Miles	Kilometers
Metres	1	39,37	3,2808	1000	0,0006214	0,001
Inches	0,0254	1	0,0833	25,4	0,00001578	0,0000254
Feet	0,3048	12	1	304,8	0,0001894	0,0003048
Millimetres	0,001	0,03937	0,0032808	1	0,0000006214	0,000001
Miles	1609,35	63,360	5,286	1,609,350	1	1,60935
Kilometres	1,000	39,370	3280,83	1,000,000	0,62137	1

ISO Metric Fine Threads (mm)							
O. DIA. (D)	Core (d1)	Pitch (P)	Depth	Flat	Effec. (d2)	Tapp'g Drill	Clearance Drill
8	6,773	1,00	0,6134	0,125	7,35	7,00	9,00
10	8,467	1,25	0,7668	0,156	9,18	8,75	11,00
12	10,467	1,25	0,7668	0,156	11,18	10,75	13,5
16	14,160	1,50	0,920	0,187	15,025	14,50	17,5
20	18,160	1,50	0,920	0,187	19,025	18,50	21,5
24	21,546	2,00	1,226	0,250	22,70	22,00	25,5
30	27,546	2,00	1,226	0,250	28,70	28,00	31,5
36	32,319	3,00	1,841	0,375	34,05	32,75	38,0
42	38,265	3,00	1,841	0,375	40,05	38,75	44,0
48	44,28	3,00	1,841	0,375	46,05	44,75	51,0
56	51,093	4,00	2,455	0,500	53,40	51,75	59,0
64	59,065	4,00	2,455	0,500	61,40	59,75	67,00



ISO Metric Coarse Threads (mm)							
O. DIA. (D)	Core (d1)	Pitch (P)	Depth	Flat	Effec. (d2)	Tapp'g Drill	Clearance Drill
1,6	1,1706	0,35	0,2147	0,04375	1,373	1,25	1,65
1,8	1,3706	0,35	0,2147	0,04375	1,573	1,45	1,85
2	1,5092	0,40	0,2454	0,05000	1,740	1,60	2,05
2,2	1,6480	0,45	0,2760	0,05625	1,908	1,75	2,25
2,5	1,9480	0,45	0,2760	0,05625	2,208	2,05	2,60
3	2,3866	0,50	0,3067	0,06250	2,675	2,50	3,10
3,5	2,7638	0,60	0,3681	0,07500	3,110	2,90	3,60
4	3,1412	0,70	0,4294	0,08750	3,545	3,30	4,10
4,5	3,5798	0,75	0,4601	0,09375	4,013	3,80	4,60
5	4,0184	0,80	0,4908	0,10000	4,480	4,20	5,10
6	4,7732	1,00	0,6134	0,12500	5,350	5,00	6,10
7	5,7732	1,00	0,6134	0,12500	6,350	6,00	7,20
8	6,4664	1,25	0,7668	0,15625	7,188	6,80	8,20
10	8,1596	1,50	0,9202	0,18750	9,026	8,50	10,20
12	9,8530	1,75	1,0735	0,21875	10,863	10,20	12,20
14	11,5462	2,00	1,2269	0,25000	12,701	12,00	14,25
16	13,5462	2,00	1,2269	0,25000	14,701	14,00	16,25
18	14,9328	2,50	1,5336	0,31250	16,376	15,50	18,25
20	16,9328	2,50	1,5336	0,31250	18,376	17,50	20,25
22	18,9328	2,50	1,5336	0,31250	20,376	19,50	22,25
24	20,3194	3,00	1,8403	0,37500	22,051	21,00	24,25
27	23,3194	3,00	1,8403	0,37500	25,051	24,00	27,25
30	25,7060	3,50	2,1470	0,43750	27,727	26,50	30,50
33	28,7060	3,50	2,1470	0,43750	30,727	29,50	33,50
36	31,0924	4,00	2,4538	0,50000	33,402	32,00	36,50
39	34,0924	4,00	2,4538	0,50000	36,402	35,00	39,50
42	36,4790	4,50	2,7605	0,56250	39,077	37,50	42,50
45	39,4790	4,50	2,7605	0,56250	42,077	40,50	45,50
48	41,8646	5,00	3,0672	0,62500	44,752	43,00	48,75
52	45,8646	5,00	3,0672	0,62500	48,752	47,00	52,75
56	49,2522	5,50	3,3739	0,68750	52,428	50,50	56,75
60	53,2522	5,50	3,3739	0,68750	56,428	54,50	60,75
64	56,6388	6,00	3,6806	0,75000	60,103	58,00	64,75
68	60,6388	6,00	3,6806	0,75000	64,103	62,00	68,75