

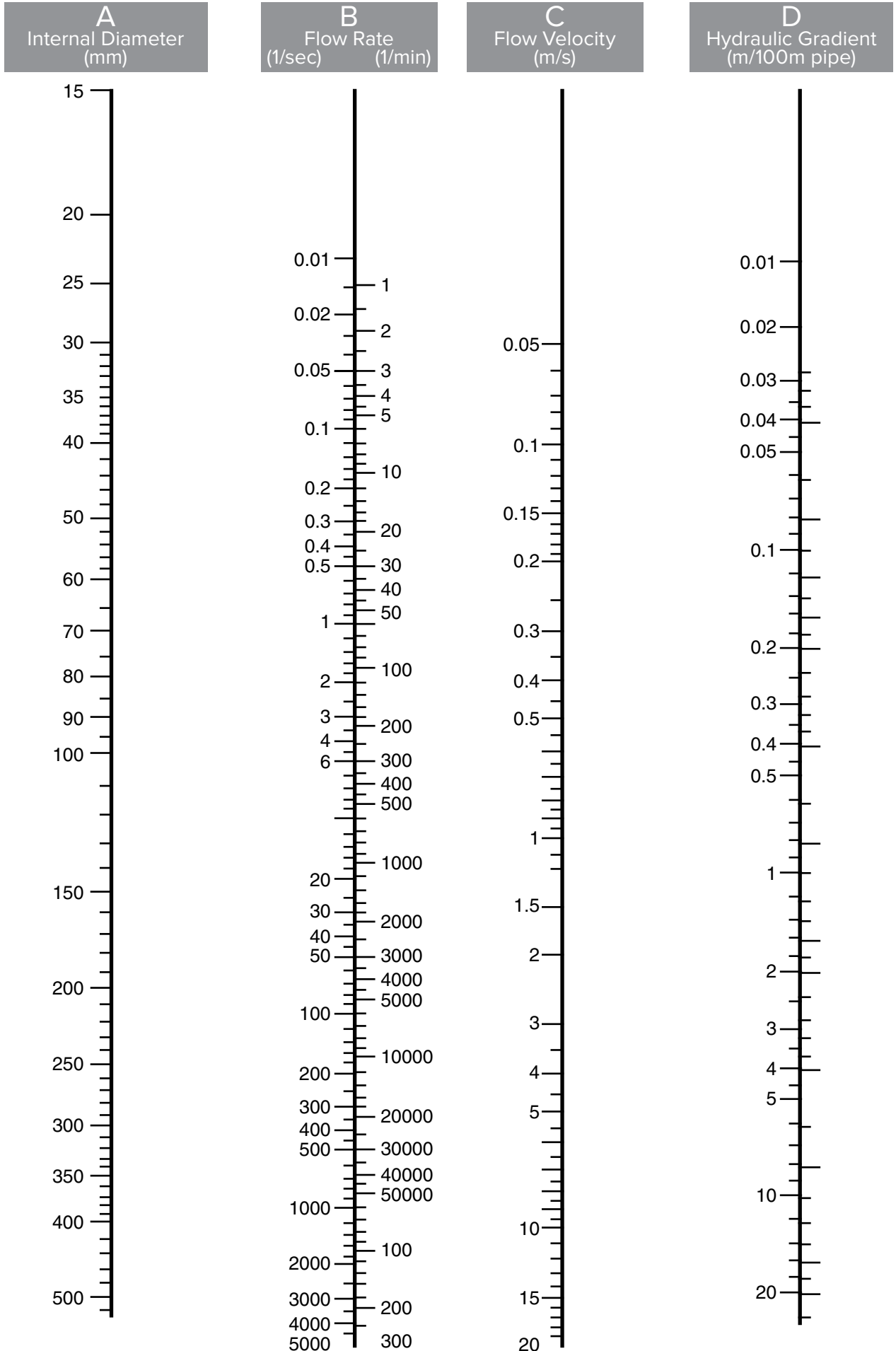
Technical Data

PROPERTIES OF POLYETHYLENE

Property	Test Method	PE* 80B	PE* 80C	PE* 100
Density kg/m ³	ISO1183D, ISO1872-ZB	950	960	960
Tensile Yield Strength Mpa	ISO527	20	21	23
Elongation at Yield %	ISO527	10	8	8
Tensile Break Strength Mpa	ISO527	27	33	37
Elongation at Break %	ISO527	>800	>600	<600
Tensile Modulus Mpa - Short Term	ref. AS.NZS 2566	700	750	950
Tensile Modulus Mpa - Long Term	ref. AS.NZS 2566	200	210	260
Hardness Shore D	DIN 53505	59	60	64
Notched Impact Strength kJ/m ² (23°C)	ISO179/1 e A	35	24	26
Melt Flow Rate 190/5, g/10min	ISO1133	0.7 - 1.0	0.4 - 0.5	0.3 - 0.5
Thermal Expansion x 10 ⁴ /C	DIN 53752	2.4	1.8	2.4
Thermal Conductivity W/m.k (20°C)	DIN 52612	0.43	0.43	0.43
Crystalline Melt Point °C	DIN 53736	125	130	132
Dielectric Strength kV/mm	DIN 53481	70	53	53
Surface Resistivity Ohm	DIN 53482	>10 ¹⁵	>10 ¹⁵	>10
Volume Resistivity Ohm	DIN 53482	>10 ¹⁵	>10 ¹⁵	>10 ¹⁵
Poissons Ratio μ		0.4	0.4	0.4

Flow Nomogram

(Approximate Values Only)



Technical Data

SDR (Standard Dimension Ratio)

SUPPORT SPANS (METRES)

DN	SDR 41	SDR 33	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11	SDR 9	SDR 7.4
16	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
20	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65
25	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.75	0.75
32	0.70	0.70	0.70	0.70	0.75	0.80	0.85	0.90	0.90
40	0.80	0.80	0.80	0.80	0.90	0.90	1.00	1.00	1.10
50	0.85	0.85	0.90	0.95	1.00	1.10	1.15	1.20	1.25
63	0.95	1.00	1.05	1.10	1.20	1.25	1.30	1.40	1.45
75	1.00	1.10	1.20	1.25	1.35	1.40	1.50	1.55	1.60
90	1.15	1.25	1.35	1.40	1.50	1.60	1.65	1.75	1.80
110	1.35	1.40	1.55	1.60	1.70	1.80	1.90	2.00	2.10
125	1.45	1.55	1.65	1.75	1.85	2.00	2.10	2.20	2.30
140	1.55	1.65	1.80	1.90	2.00	2.10	2.25	2.35	2.45
160	1.70	1.80	1.95	2.10	2.20	2.30	2.45	2.55	2.65
180	1.85	1.95	2.10	2.25	2.35	2.50	2.65	2.80	2.90
200	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00	3.10
225	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35
250	2.30	2.45	2.60	2.75	2.95	3.10	3.30	3.45	3.60
280	2.45	2.65	2.80	3.00	3.20	3.35	3.55	3.70	3.90
315	2.65	2.85	3.05	3.25	3.45	3.65	3.85	4.05	4.20
355	2.90	3.10	3.30	3.50	3.75	3.95	4.15	4.35	4.55
400	3.10	3.35	3.55	3.80	4.05	4.25	4.50	4.70	4.90
450	3.40	3.60	3.85	4.10	4.35	4.60	4.85	5.10	5.35
500	3.60	3.85	4.15	4.40	4.75	4.95	5.20	5.50	
560	3.90	4.15	4.50	4.75	5.05	5.35			
630	4.20	4.50	4.85	5.55	5.45	5.80			
710	4.60	4.90	5.25	5.60	5.95	6.30			
800	4.95	5.30	5.70	6.05	6.45	6.85			
900	5.35	5.70	6.10	6.55	6.95				
1000	5.80	6.15	6.55	7.00	7.35				

TEMPERATURE RATING TABLE

PE 100		Permissible System Operating Head (m)								
Temp C°	Limit Years	PN 3.2	PN 4	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
20	200	32	40	63	80	100	125	160	200	250
25	100	30	38	59	75	94	117	150	188	233
30	100	28	35	55	70	88	109	140	175	218
35	100	26	32	50	64	80	100	128	160	200
40	100	24	30	47	60	75	94	120	150	185
45	60	22	28	44	56	70	88	112	140	175
50	36	21	26	41	52	65	81	104	130	163
55	24	19	24	38	48	60	75	96	120	150
60	12	18	23	35	45	56	70	90	113	140
65	8	17	21	33	42	53	66	84	105	130
70	5	16	20	31	39	49	61	78	98	120
75	2	14	18	28	36	45	56	72	90	113
80	2	13	17	26	33	41	52	66	83	105

Essential Guide For Electrofusion Poly

Please study these photos. The preparation you see is essential for fusion.



1. Pipe must be dry cut so that pipe ends are kept free of oil or any other contaminant. Cut must be straight to allow full insertion into EF fitting.



2. Scrape the outside surface of the spigot for at least half the socket length, immediately before assembly & welding. Complete and even removal of 0.2mm to 0.3mm is absolutely essential. Use a rotary scraping tool as it removes a consistent amount of material



3. Clean the spigot and socket interior with alcohol wipes, and allow to completely dry. Ensure spigots & socket interior are dry and free of any contamination before assembly. Retain EF fittings in their original bag until ready to weld.

Essential Guide For Electrofusion Poly

Please study these photos. The preparation you see is essential for fusion.

4. Use a texta, paint marker or wax pencil to ensure that all spigots are inserted half way into the EF sockets. Ensure pipe ends are square and together to prevent molten material releasing into the pipe bore during welding.



5. Be sure the joint is kept straight, still and not under any stress during weld and cool down time. Must not be artificially cooled in any way. If you have any further questions please call one of our helpful staff on 1800 634 644.



Terms & Conditions

1. **SELLER** means Matrix Piping Systems and **BUYER** means the Buyer whose order for the purchase of goods is accepted by the seller.
2. **ACCEPTANCE OF BUYERS ORDER** These terms and conditions shall apply to every sales contract and sale of goods between Seller and Buyer; any terms and conditions of Buyer's order deviating from or inconsistent with these terms and conditions are expressly rejected by Seller. This rejection also extends to any statement by Buyer that Buyer's terms and conditions shall prevail and to any stipulation by Buyer as to the manner of declaring such rejection. A contract shall only be or be deemed to have been entered into between Seller and Buyer for the supply of goods when, upon an order having been placed upon Seller for goods, that order has been accepted by Seller. (Such acceptance of order may be made and communicated by Seller in writing or by overt act of acceptance.) The provisions of this Clause 2 shall apply to every quotation or offer by Seller for the Supply of goods.
3. **PRICES** Quotations are to be treated as estimates only and subject to withdrawal, correction or alteration at any time before acceptance of Buyer's order by Seller. **PRICES ARE EX SELLER'S WAREHOUSE UNLESS OTHERWISE AGREED IN WRITING.** Prices do not include GST which will be charged at the commissioner of taxation's current rate on all taxable goods and services supplied.
4. **INSURANCE** Buyer is responsible to effect whatever insurance cover he requires at his expense.
5. **PAYMENT** Deposit of 10% to accompany official order with further progress payments as requested and balance on completion or on advice from us that completed goods are ready for delivery. If Seller shall extend credit to Buyer, payment for all goods sold will be within Thirty (30) days from date of each delivery. Interest shall be payable by Buyer on all amounts overdue to Seller at the rate of 2% (2 percentum) per month.
6. **CONFIRMATION ORDERS** Confirmation orders must be marked as such by Buyer, if not Seller will consider Buyer's order as original.
7. **CANCELLATION** Orders accepted by Seller cannot be countermanded or delivery deferred or goods returned except with the written consent of Seller and upon terms that reimburse and indemnify Seller against all loss including cartage, bank charges and other incidental expenses on any part of the order that is cancelled. Where Seller agrees to accept goods for return a re-stocking charge of 15% of the price of the goods returned will be made.
8. **ACCEPTANCE AND CLAIMS** Acceptance of the goods delivered shall be deemed for all purposes to have taken place at the expiration of seven (7) days from the date of each delivery.
9. **DELIVERY AND RISK**
 - (a) At cost to be effected approximately 8-11 weeks from acceptance of this order schedule. Subject at all times to factors outside our control, holidays, fire, strikes, lockouts, other contingencies and in all cases subject to confirmation or alteration if and when offered order is accepted by us.
 - (b) Unless the Buyer has requested Seller to make special delivery arrangements the risk in respect of the goods shall pass to the Buyer upon delivery to the Buyer's premises or the nominated carrier's depot. The Buyer shall provide or cause to be provided full and clear access for delivery and will at his own expense provide all necessary assistance in unloading the goods at the nominated place of delivery.
 - (c) Where the Buyer has requested special delivery arrangements (ie. other than Seller delivering to premises of Buyer) risk in respect of goods shall pass to the Buyer upon the goods leaving the premises of Seller in Swan Hill. Seller will not in any circumstances accept liability for damage, shortage or loss during transit.
 - (d) If delivery of the goods by Seller is delayed for a cause other than it's own negligence, the Buyer shall be liable for extra charges, losses or expenses incurred by Seller and the Buyer shall not be entitled to cancel this contract by reason thereof.
10. **SPECIAL ORDERS** Buyer will place order in writing on Seller for non-stock items. Seller will not accept return of non-stock items unless Manufacturer agrees to accept return from Seller. Seller may deduct transport handling and restocking charges of 15% of the price of the goods from the credit due to Buyer and may also deduct therefrom reasonable labour costs associated with the restoration of non-stock items to the condition as supplied by Manufacturer.

Terms & Conditions

11. **RISK AND PROPERTY** The risk in the goods sold shall pass to Buyer at the point of delivery. This shall also apply to any partial delivery of goods. If delivery of goods is delayed due to any circumstances beyond the control of Seller the risk passes to Buyer on the day when the goods were first ready for consignment from the Seller's warehouse and this day is to be regarded as date of delivery for purpose of payment in Clause 5. The property in the goods shall remain Seller's until it has received in cash the total contract price. Seller may at any time recover the goods if they are in the Buyer's possession and resell the goods if any payment owed by the Buyer on any account is overdue or if Seller considers that the amount outstanding from the Buyer on the general statement of account between the parties is in excess of the credit limit Seller is willing to accord to the Buyer and for this purpose Seller, its servants or agents may enter upon the Buyer's or other premises upon which the goods are situated.
12. **DELIVERY TIME** Seller may deliver the goods by instalments or partial shipments and Buyer will accept each delivery. Requirements of Buyer shall not be a condition or of the essence of the contract. Seller shall be under no liability for direct consequential loss or damage to Buyer arising from delay or postponement in delivery.
13. **WARRANTY** Goods sold shall have only the benefit of any warranty given by the Manufacturer which Seller is able to enforce without legal expense. Buyer should carefully note the terms of Manufacturers' warranties. Under no circumstances is Seller liable for any direct or consequential loss or damage to persons or property of any nature due to any cause whatsoever. All conditions and Warranties implied by law or under Statute are hereby expressly negated so far as they lawfully can be. Goods are not guaranteed by Seller in any way unless expressly in writing. Any such warranty is subject to the Manufacturer's Maintenance and Conditions of Operation to the goods sold to Buyer. Transport costs of Warranty Items are payable by Buyer.
14. **NO IMPLIED SERVICE** The Buyer acknowledges that excepting as provided by law this agreement does not entitle the Buyer to demand to receive from Seller any site inspection or service of the goods supplied, delivered and installed if applicable. If the Buyer does not require Seller's services in respect of site inspection and service of the goods, the subject of this agreement then the Buyer should arrange with Seller to enter a separate agreement in respect of same. In the event that no separate agreement in relation to site inspection and service is required by the Buyer, then the Buyer acknowledges that in the event of the goods supplied requiring to be serviced or inspected due to breakdown or otherwise, then the Buyer shall rely solely on any benefit in respect of same provided by the Manufacturer.
15. **AGREED USE** The Buyer acknowledges that the matters set out in the schedule hereto are a description of the purposes for which the goods purchased hereby are to be applied in respect of work required to be performed by such goods and that the Buyer may forfeit any rights he may have against Seller for the supply of the subject goods if they are applied to any other use. The Buyer forfeits any right or claim against the Seller if any alteration to the goods sold or quoted is carried out without the Seller's written consent. The Buyer further acknowledges sole responsibility for any damage or injury to property or persons caused by using the sold goods to pump or transfer hazardous or toxic fluids or substances.
16. **REPAIRS** Goods returned by Buyer to Seller for repair will be free of all charges to Seller and at Buyer's risk.
17. **VARIATION BY BUYER** Should there be any variation in details, sizes and quantities, delivery instructions or any other item or matter on which the quotation or invoice is based Seller reserves the right to revise and amend the contract price accordingly.
18. **CLERICAL ERRORS** Clerical errors in computations, typing or otherwise of catalogue quotation; acceptance; offer; invoice; delivery docket; credit note; specification of Seller shall be subject to correction.
19. **MODIFICATIONS** All modifications and amendments to these Terms and Conditions shall be in writing and if otherwise shall not be binding upon Seller.
20. If any of the provisions of this Contract are unlawful or invalid by reason of any applicable statute or rule of Law, then such provision shall be severed from the rest of this Contract which shall remain valid and binding on the parties.