

# Acrobat 250 Welding Parameters

CURRENT AS OF  
09/01/2023

Product Line & Material	Pipe Size	Initial Melt Pressure (psi)	Bead Height	Melt Pressure	Heatsoak Time	Changeover Time	Welding Pressure (psi)	Cooling Time
Air-Pro® (PE)	2" (63mm) SDR7	61	2 mm	Almost Zero	86 seconds	7 seconds	61	8.9 min
Air-Pro® (PE)	3" (90mm) SDR7	115	2 mm	Almost Zero	123 seconds	8 seconds	115	12.3 min
Air-Pro® (PE)	4" (110mm) SDR7	166	2 mm	Almost Zero	151 seconds	9 seconds	166	14.7 min
Air-Pro® (PE)	6" (160mm) SDR11	255	2 mm	Almost Zero	146 seconds	9 seconds	255	14.2 min
Air-Pro® (PE)	8" (200mm) SDR11	382	2 mm	Almost Zero	182 seconds	10 seconds	382	17.3 min
Air-Pro® (PE)	10" (250mm) SDR11	598	2.5 mm	Almost Zero	227 seconds	11 seconds	598	21.2 min
Asahitec™ Solid Wall (PP-RCT)	2" (63mm) SDR11	30	0.5 mm	Almost Zero	79 seconds	6 seconds	30	6.3 min
Asahitec™ Solid Wall (PP-RCT)	2-1/2" (75mm) SDR11	38	0.5 mm	Almost Zero	79 seconds	6 seconds	38	7.3 min
Asahitec™ Solid Wall (PP-RCT)	4" (110mm) SDR11	64	1 mm	Almost Zero	113 seconds	7 seconds	64	10.2 min
Asahitec™ Solid Wall (PP-RCT)	5" (125mm) SDR11	89	1 mm	Almost Zero	129 seconds	7 seconds	89	11.5 min
Asahitec™ Solid Wall (PP-RCT)	8" (200mm) SDR11	102	1 mm	Almost Zero	198 seconds	9 seconds	102	17.3 min
Asahitec™ Solid Wall (PP-RCT)	10" (250mm) SDR11	166	1.5 mm	Almost Zero	240 seconds	10 seconds	166	21.2 min



### Welding Temperatures

PP:	393°F - 410°F (200°C - 210°C)
PE:	420°F - 446°F (215°C - 230°C)
PVDF:	436°F - 446°F (225°C - 230°C)
ECTFE:	527°F - 536°F (275°C - 280°C)

A reduction in the cooling time of up to 50%, i.e. removal of the welded part from the welding machine, is permitted in the following circumstances:

- the joint connection was created under workshop conditions and
- the removal of the part from the welding machine and its temporary storage until the complete cooling time according to the Cooling Time column causes negligible loading of the joint

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Asahitec™ Solid Wall (PP-RCT)	2" (63mm) SDR7	43	1 mm	Almost Zero	98 seconds	6 seconds	407	8.9 min
Asahitec™ Solid Wall (PP-RCT)	2-1/2" (75mm) SDR7	64	1 mm	Almost Zero	117 seconds	7 seconds	5.0 bar	10.5 min
Asahitec™ Solid Wall (PP-RCT)	3" (90mm) SDR7	76	1 mm	Almost Zero	117 seconds	7 seconds	76	12.3 min
Asahitec™ Solid Wall (PP-RCT)	4" (110mm) SDR7	115	1 mm	Almost Zero	166 seconds	8 seconds	115	14.7 min
Asahitec™ Solid Wall (PP-RCT)	5" (125mm) SDR7	153	1 mm	Almost Zero	187 seconds	8 seconds	153	16.4 min
Chem Proline® (PE)	2" (63mm) SDR11	43	1.5 mm	Almost Zero	58 seconds	6 seconds	43	6.3 min
Chem Proline® (PE)	3" (90mm) SDR11	89	1.5 mm	Almost Zero	82 seconds	6 seconds	89	8.6 min
Chem Proline® (PE)	4" (110mm) SDR11	127	1.5 mm	Almost Zero	100 seconds	7 seconds	127	10.2 min
Chem Proline® (PE)	6" (160mm) SDR11	255	2 mm	Almost Zero	146 seconds	9 seconds	255	14.2 min
Chem Proline® (PE)	8" (200mm) SDR11	382	2 mm	Almost Zero	182 seconds	10 seconds	382	17.3 min
Chem Proline® (PE)	10" (250mm) SDR11	598	2 mm	Almost Zero	227 seconds	11 seconds	598	21.2 min
Climatec™ (PP-RCT)	2" (63mm) SDR11	30	0.5 mm	Almost Zero	68 seconds	6 seconds	30	6.3 min



### Welding Temperatures

PP:	393°F - 410°F (200°C - 210°C)
PE:	420°F - 446°F (215°C - 230°C)
PVDF:	436°F - 446°F (225°C - 230°C)
ECTFE:	527°F - 536°F (275°C - 280°C)

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Climatec™ (PP-RCT)	2-1/2" (75mm) SDR11	38	0.5 mm	Almost Zero	79 seconds	6 seconds	38	7.3 min
Climatec™ (PP-RCT)	3" (90mm) SDR11	64	1 mm	Almost Zero	94 seconds	6 seconds	64	8.6 min
Climatec™ (PP-RCT)	4" (110mm) SDR11	89	1 mm	Almost Zero	113 seconds	7 seconds	89	10.2 min
Climatec™ (PP-RCT)	5" (125mm) SDR11	102	1 mm	Almost Zero	129 seconds	7 seconds	102	11.5 min
Climatec™ (PP-RCT)	6" (160mm) SDR17	166	1 mm	Almost Zero	161 seconds	8 seconds	166	14.2 min
Climatec™ (PP-RCT)	8" (200mm) SDR11	255	1 mm	Almost Zero	198 seconds	9 seconds	255	17.3 min
Climatec™ (PP-RCT)	10" (250mm) SDR11	407	1.5 mm	Almost Zero	240 seconds	10 seconds	407	21.2 min
Proline® PRO150 (PP)	3" (90mm) SDR11	64	1 mm	Almost Zero	94 seconds	6 seconds	64	8.6 min
Proline® PRO150 (PP)	4" (110mm) SDR11	89	1 mm	Almost Zero	113 seconds	7 seconds	89	10.2 min
Proline® PRO150 (PP)	6" (160mm) SDR11	166	1 mm	Almost Zero	161 seconds	8 seconds	166	14.2 min
Proline® PRO150 (PP)	7" (180mm) SDR11	216	1 mm	Almost Zero	180 seconds	8 seconds	216	15.8 min
Proline® PRO150 (PP)	8" (200mm) SDR11	255	1 mm	Almost Zero	198 seconds	9 seconds	255	17.3 min



### Welding Temperatures

PP: 393°F - 410°F (200°C - 210°C)  
 PE: 420°F - 446°F (215°C - 230°C)  
 PVDF: 436°F - 446°F (225°C - 230°C)  
 ECTFE: 527°F - 536°F (275°C - 280°C)

A reduction in the cooling time of up to 50%, i.e. removal of the welded part from the welding machine, is permitted in the following circumstances:  
 - the joint connection was created under workshop conditions and  
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Product Line & Material	Pipe Size	Initial Melt Pressure (psi)	Bead Height	Melt Pressure	Heatsoak Time	Changeover Time	Welding Pressure (psi)	Cooling Time
Proline® PRO150 (PP)	9" (225mm) SDR11	331	1.5 mm	Almost Zero	220 seconds	9 seconds	331	19.3 min
Proline® PRO150 (PP)	10" (250mm) SDR11	407	1.5 mm	Almost Zero	240 seconds	10 seconds	407	21.2 min
Proline® PRO90 (PP)	2-1/2" (75mm) SDR17.6	25	0.5 mm	Almost Zero	51 seconds	5 seconds	25	5.0 min
Proline® PRO90 (PP)	3" (90mm) SDR17.6	38	0.5 mm	Almost Zero	60 seconds	5 seconds	38	5.4 min
Proline® PRO90 (PP)	4" (110mm) SDR17.6	51	0.5 mm	Almost Zero	73 seconds	6 seconds	51	6.5 min
Proline® PRO90 (PP)	4-1/2" (125mm) SDR17.6	76	1 mm	Almost Zero	82 seconds	6 seconds	76	7.4 min
Proline® PRO90 (PP)	5" (140mm) SDR17.6	89	1 mm	Almost Zero	92 seconds	6 seconds	89	8.2 min
Proline® PRO90 (PP)	6" (160mm) SDR17.6	115	1 mm	Almost Zero	104 seconds	6 seconds	115	9.2 min
Proline® PRO90 (PP)	7" (180mm) SDR17.6	140	1 mm	Almost Zero	116 seconds	7 seconds	140	10.2 min
Proline® PRO90 (PP)	8" (200mm) SDR17.6	166	1 mm	Almost Zero	129 seconds	7 seconds	166	11.3 min
Proline® PRO90 (PP)	9" (225mm) SDR17.6	216	1 mm	Almost Zero	143 seconds	7 seconds	216	12.4 min
Proline® PRO90 (PP)	10" (250mm) SDR17.6	267	1 mm	Almost Zero	157 seconds	8 seconds	267	13.5 min



### Welding Temperatures

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PE:	420°F - 446°F (215°C - 230°C)
PVDF:	436°F - 446°F (225°C - 230°C)
ECTFE:	527°F - 536°F (275°C - 280°C)

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Product Line & Material	Pipe Size	Initial Melt Pressure (psi)	Bead Height	Melt Pressure	Heatsoak Time	Changeover Time	Welding Pressure (psi)	Cooling Time
Proline® PRO45 (PP)	4" (110mm) SDR33	38	0.5 mm	Almost Zero	40 seconds	5 seconds	38	5.0 min
Proline® PRO45 (PP)	4-1/2" (125mm) SDR33	38	0.5 mm	Almost Zero	46 seconds	5 seconds	38	5.0 min
Proline® PRO45 (PP)	5" (140mm) SDR33	51	0.5 mm	Almost Zero	51 seconds	5 seconds	51	5.0 min
Proline® PRO45 (PP)	6" (160mm) SDR33	64	0.5 mm	Almost Zero	57 seconds	5 seconds	64	5.4 min
Proline® PRO45 (PP)	7" (180mm) SDR33	76	0.5 mm	Almost Zero	64 seconds	5 seconds	76	6.0 min
Proline® PRO45 (PP)	8" (200mm) SDR33	102	0.5 mm	Almost Zero	72 seconds	6 seconds	102	6.7 min
Proline® PRO45 (PP)	9" (225mm) SDR33	127	0.5 mm	Almost Zero	80 seconds	6 seconds	127	7.4 min
Proline® PRO45 (PP)	10" (250mm) SDR33	153	1 mm	Almost Zero	89 seconds	6 seconds	153	8.1 min
Super Proline® (PVDF)	2-1/2" (75mm) SDR21	25	0.5 mm	Almost Zero	76 seconds	3 seconds	25	6.5 min
Super Proline® (PVDF)	3" (90mm) SDR21	38	0.5 mm	Almost Zero	83 seconds	3 seconds	38	7.0 min
Super Proline® (PVDF)	4" (110mm) SDR21	51	0.5 mm	Almost Zero	93 seconds	3 seconds	51	8.5 min
Super Proline® (PVDF)	6" (160mm) SDR21	102	0.7 mm	Almost Zero	117 seconds	4 seconds	102	11.0 min



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 PVDF: 436°F - 446°F (225°C - 230°C)  
 ECTFE: 527°F - 536°F (275°C - 280°C)

A reduction in the cooling time of up to 50%, i.e. removal of the welded part from the welding machine, is permitted in the following circumstances:

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Super Proline® (PVDF)	8" (200mm) SDR21	153	1 mm	Almost Zero	136 seconds	4 seconds	153	13.5 min
Super Proline® (PVDF)	10" (250mm) SDR21	229	1.1 mm	Almost Zero	159 seconds	4 seconds	229	16.5 min
Super Proline® (PVDF)	2-1/2" (75mm) SDR33	25	0.5 mm	Almost Zero	63 seconds	3 seconds	25	5.0 min
Super Proline® (PVDF)	3" (90mm) SDR33	25	0.5 mm	Almost Zero	68 seconds	3 seconds	25	5.5 min
Super Proline® (PVDF)	4" (110mm) SDR33	38	0.5 mm	Almost Zero	74 seconds	3 seconds	38	6.0 min
Super Proline® (PVDF)	6" (160mm) SDR33	64	0.5 mm	Almost Zero	89 seconds	3 seconds	64	8.0 min
Super Proline® (PVDF)	8" (200mm) SDR33	102	0.6 mm	Almost Zero	102 seconds	4 seconds	102	9.5 min
Super Proline® (PVDF)	10" (250mm) SDR33	153	0.7 mm	Almost Zero	117 seconds	4 seconds	153	11.0 min
Watertec™ (PP-RCT)	2-1/2" (75mm) SDR7	64	1 mm	Almost Zero	117 seconds	7 seconds	64	10.5 min
Watertec™ (PP-RCT)	3" (90mm) SDR9	64	1 mm	Almost Zero	114 seconds	7 seconds	64	10.3 min
Watertec™ (PP-RCT)	4" (110mm) SDR9	102	1 mm	Almost Zero	138 seconds	7 seconds	102	12.3 min
Watertec™ (PP-RCT)	5" (125mm) SDR9	127	1 mm	Almost Zero	155 seconds	8 seconds	127	13.7 min



### Welding Temperatures

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 PE: 420°F - 446°F (215°C - 230°C)  
 PVDF: 436°F - 446°F (225°C - 230°C)  
 ECTFE: 527°F - 536°F (275°C - 280°C)

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Watertec™ (PP-RCT)	6" (160mm) SDR11	166	1 mm	Almost Zero	161 seconds	8 seconds	166	14.2 min
Watertec™ (PP-RCT)	8" (200mm) SDR11	255	1 mm	Almost Zero	198 seconds	9 seconds	255	17.3 min
Watertec™ (PP-RCT)	10" (250mm) SDR11	407	1.5 mm	Almost Zero	240 seconds	10 seconds	407	21.2 min
Duo-Pro® PRO150X150 (PP)	3" X 6" (90mm X 160mm) SDR11X11	229	1 mm	Almost Zero	161 seconds	8 seconds	229	14.2 min
Duo-Pro® PRO150X150 (PP)	4" X 8" (110mm X 200mm) SDR11X11	344	1 mm	Almost Zero	198 seconds	9 seconds	344	17.3 min
Duo-Pro® PRO150X150 (PP)	6" X 10" (160mm X 250mm) SDR11X11	573	1.5 mm	Almost Zero	240 seconds	10 seconds	573	21.2 min
Duo-Pro® PRO150X150 (PP)	2" X 6" (63mm X 160mm) SDR11X11	196	1 mm	Almost Zero	161 seconds	8 seconds	196	14.2 min
Duo-Pro® PRO150X45 (PP)	3" X 6" (90mm X 160mm) SDR11X33	127	0.5 mm	Almost Zero	94 seconds	6 seconds	127	8.6 min
Duo-Pro® PRO150X45 (PP)	4" X 8" (110mm X 200mm) SDR11X33	191	0.5 mm	Almost Zero	113 seconds	7 seconds	191	10.2 min
Duo-Pro® PRO150X45 (PP)	6" X 10" (160mm X 250mm) SDR11X33	318	1 mm	Almost Zero	161 seconds	8 seconds	318	14.2 min
Duo-Pro® PRO150X45 (PP)	2" X 6" (63mm X 160mm) SDR11X33	94	0.5 mm	Almost Zero	68 seconds	6 seconds	94	6.3 min
Duo-Pro® PRO45X45 (PP)	4" X 8" (110mm X 200mm) SDR33X33	140	0.5 mm	Almost Zero	72 seconds	6 seconds	140	6.7 min



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Duo-Pro® PRO45X45 (PP)	6" X 10" (160mm X 250mm) SDR33X33	216	1 mm	Almost Zero	89 seconds	6 seconds	216	6.7 min
Duo-Pro® PVDFXPVDF (PVDF)	2" X 4" (63mm X 110mm) SDR21X33	53	0.5 mm	Almost Zero	74 seconds	3 seconds	53	6.0 min
Duo-Pro® PVDFXPVDF (PVDF)	3" X 6" (90mm X 160mm) SDR33X33	89	0.5 mm	Almost Zero	89 seconds	3 seconds	89	8.0 min
Duo-Pro® PVDFXPVDF (PVDF)	4" X 8" (110mm X 200mm) SDR33X33	140	0.6 mm	Almost Zero	102 seconds	4 seconds	140	9.5 min
Duo-Pro® PVDFXPVDF (PVDF)	6" X 10" (160mm X 250mm) SDR33X33	216	0.7 mm	Almost Zero	117 seconds	4 seconds	216	11.0 min
Duo-Pro® PVDFXPVDF (PVDF)	2" X 6" (63mm X 160mm) SDR21X33	82	0.5 mm	Almost Zero	89 seconds	3 seconds	82	8.0 min
Fluidlok (IPS) (PE)	3" X 6" SDR11X17	173	0.5 mm	Almost Zero	65 seconds	5 seconds	173	10.0 min
Fluidlok (IPS) (PE)	4" X 8" SDR11X17	303	0.6 mm	Almost Zero	86 seconds	5 seconds	303	12.0 min
Poly-Flo® PE100RC (PE)	2" X 3" (63mm X 90mm) SDR11X17	71	1 mm	Almost Zero	35 seconds	5 seconds	71	8.0 min
Poly-Flo® PE100RC (PE)	4" X 6" (110mm X 160mm) SDR11X17	243	1.5 mm	Almost Zero	80 seconds	7 seconds	243	14.0 min
Poly-Flo® PPR (PP)	2" X 3" (63mm X 90mm) SDR11X17	65	0.5 mm	Almost Zero	80 seconds	6 seconds	65	9.0 min
Poly-Flo® PPR (PP)	4" X 6" (110mm X 160mm) SDR11X17	201	1 mm	Almost Zero	150 seconds	7 seconds	201	17.0 min



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A reduction in the cooling time of up to 50%, i.e. removal of the welded part from the welding machine, is permitted in the following circumstances:

- the joint connection was created under workshop conditions and
- the removal of the part from the welding machine and its temporary storage until the complete cooling time according to the Cooling Time column causes negligible loading of the joint