

### TGX Series

**PREMIARC™**

**TG-X308L / R308LT1-5**

**PREMIARC™**

**TG-X309L / R309LT1-5**

**PREMIARC™**

**TG-X316L / R316LT1-5**

**PREMIARC™**

**TG-X347 / R347T1-5**



### No back purge necessary

#### Outstanding Features

- TGX Series Flux Cored Filler Rods for TIG welding, produce slag to protect the reverse side of the root pass from oxidation by the atmosphere.
- Saving the costs for back shielding gases and gas purging downtime including the setting time for gas purging jigs.

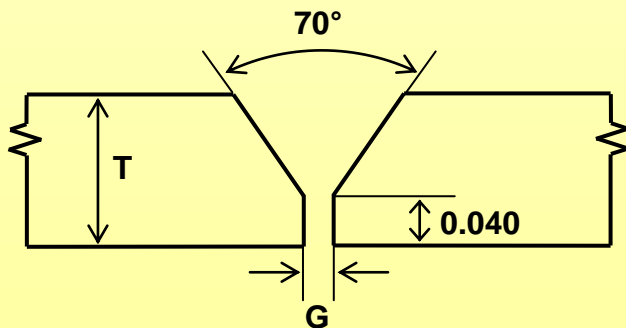
#### Size and Packaging

**Size: 0.087" dia. (2.2mm dia.) X 39" length**

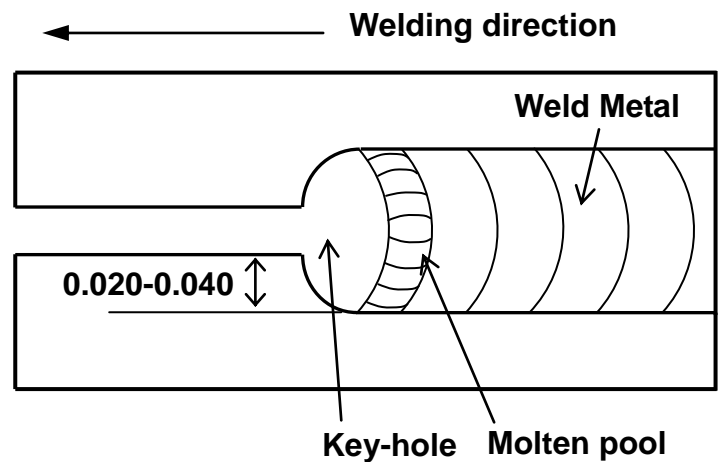
**Packaging: 11lbs in a polyethylene tube**

#### Recommended welding parameters

Plate Thickness: T (in.)	1/8-3/16	1/4-11/16	>3/8
Root gap: G (in.)	5/64	3/32	7/64
Current (DC-EN): Amp.	80-90	90-105	90-110



Groove shape



Formation of key-hole

**Notes:**

1. Formation of key-hole during welding is very important in order to supply slag onto reverse side bead.
2. Only for root pass in single-side welding, not for cover pass.

### Typical chemistry of weld metal (100%Ar)

Alloy	C	Si	Mn	Cr	Ni	Other
TG-X308L	0.018	0.80	1.66	19.62	10.31	-
TG-X309L	0.017	0.81	1.52	24.26	12.62	-
TG-X316L	0.016	0.87	1.55	18.89	12.47	Mo: 2.32
TG-X347	0.020	0.80	1.60	19.09	10.21	Nb: 0.68

### Typical mechanical property of weld metal (100%Ar)

Alloy	0.2%P.S (psi)	T.S (psi)	Elongation (%)	Impact Value at 32 °F (ft-lbs)
TG-X308L	65,250	92,800	47	94
TG-X309L	76,850	98,600	32	80
TG-X316L	63,800	87,000	38	88
TG-X347	66,700	91,350	48	94

### Comparison of TGX to Conventional Solid Filler Rod

Requirements		Filler rod					
		TGX	Conventional		TGX	Conventional	
Pipe dia. (in.)		2			12		
Root gap (in.)		5/64	1/16		7/64	3/32	
Method of back shielding		-	Local (12in.)	Entire (236in.)	-	Local (12in.)	Entire (236in.)
Time (minute)	Pre-purging	-	0.2	4.0	-	5.2	104.0
	Setting of jigs	-	10.0	-	-	10.0	-
	Welding	6.0	5.2	5.2	35.0	30.0	30.0
	<b>Total</b>	<b>6.0</b>	<b>15.4</b>	<b>9.2</b>	<b>35.0</b>	<b>45.2</b>	<b>134.0</b>
Amount of Gas (ft <sup>3</sup> /hr)	Pre-purging	-	0.2	3.3	-	4.3	86.3
	Back-shielding	-	1.5	1.5	-	8.5	8.5
	Shield in welding	1.6	1.4	1.4	9.3	7.9	7.9
	<b>Total</b>	<b>1.6</b>	<b>3.1</b>	<b>6.2</b>	<b>9.3</b>	<b>20.7</b>	<b>102.7</b>

1. Back shielding condition refers to AWS D10.12
2. Welding time contains time for tack welding and grinding. Arc time ratio: 50%
3. Gas flow rate: Pre-purging; 50ft<sup>3</sup>/hr, Back-shielding; 17ft<sup>3</sup>/hr, Shield in welding; 32ft<sup>3</sup>/hr,



WARNING: This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warning.ca.gov](http://www.P65Warning.ca.gov).

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