

**I80™**  
**Proprietary High Strength ERW Casing**



# I80™

## Proprietary High Strength ERW Casing

### Performance and Value

TMK IPSCO I80™ casing offers a high-performance and high-value alternative to API L80, one of the most widely used grades in land drilling today. Our proprietary product is the result of a legacy of carefully-developed chemistry and rolling practices that achieve high strength tensile properties in an as-welded product. As a micro-alloyed steel, TMK IPSCO I80 is thermo-mechanically rolled to achieve an extremely fine grain (ASTM 09 or finer). This fine grain—along with the strengthening benefits of niobium, vanadium and titanium (added individually or in combination)—gives I80 casing high performance without requiring the added cost of subsequent heat treating. I80 is an electric welded, seam normalized product. TMK IPSCO is expanding the product size of I80 to include 9-5/8" 40# casing for even more flexibility in the field.

### Quality-Focused

All TMK IPSCO proprietary grades are manufactured from steel ordered to meet specific chemical, metallurgical and mechanical properties. I80 casing is made from steel specifically alloyed for this grade. Our products are manufactured, inspected and tested in accordance with our documented Quality Management System (certified/audited by API Q1 and ISO 9001) and include a full weld line ultrasonic inspection, tensile and chemistry testing, flat testing, hydrostatic testing and a full visual examination.

### Global Strength

TMK IPSCO is an industry leader in welded and seamless pipe, premium connections and accessories with the strength of more than twenty manufacturing facilities strategically located in the key energy producing areas of the world. Our legacy of quality, exceptional customer service and focus on innovation translates into unparalleled value for our customers. Our strength—in product and presence—gives customers a competitive edge, making us the ideal supplier for the oil and gas industry as well as many industrial markets worldwide.

For more information on any of the details featured here, please contact: [techsales@tmk-ipsco.com](mailto:techsales@tmk-ipsco.com)

### Quality-Focused

TMK IPSCO I80 has been extensively tested during the development phase, including tensile tests, collapse tests, impact tests and hardness tests. I80 has a minimum yield strength of 80,000 psi and a minimum tensile strength of 90,000 psi. This compares to standard L80 material with a minimum yield strength of 80,000 psi and a minimum tensile strength of 95,000 psi. The I80 can be finished with standard API 8 round or buttress threads, as well as select TMK UP products. TMK IPSCO I80 meets or exceeds API TR 5C3 collapse values and is manufactured in accordance with all of the requirements and tolerances of API 5CT, except for strength characteristics. The casing is marked the same as API 5CT requirements; however, it is not API monogrammed since it is a proprietary grade.

	4.5"	5.5"	7.0"	9.625"
Pipe Dia.	11.6#	17#	26#	40#
Size (in)	4.500	5.500	7.000	9.625
Nominal Weight (lb/ft)	11.60	17.00	26.00	40.00
PE Weight (lb/ft)	11.36	16.89	25.69	38.97
Wall Thickness (in)	0.250	0.304	0.362	0.395
Nominal OD (in)	4.500	5.500	7.000	9.625
Nominal ID (in)	4.000	4.892	6.276	8.835
Drift Dia. (in)	3.875	4.767	6.151	8.750
Coupling Dia. (in)	5.000	6.050	7.656	10.625
Nominal Area (in)	3.338	4.962	7.549	11.454

### Pipe Body Performance

Min. Yield Strength (psi)	80,000	80,000	80,000	80,000
Min. Tensile Strength (psi)	90,000	90,000	90,000	90,000
Min. Collapse Pressure (psi)	6,350	6,290	5,410	3,090
Min. Burst Pressure (psi)	7,780	7,740	7,240	5,750
Pipe Body Yield (lbs)	267,000	397,000	600,000	916,000
Joint Strength (lbs)	201,000	320,000	500,000	716,000

#### Note:

Makeup torque is based upon the API calculation of joint strength.

The API calculation is used to predict joint failure; they are not a working limit. A proper factor of safety must be used.

Pipe must be properly "doped" and the torque factor must be adjusted for the friction factor of the pipe dope.

TMK IPSCO products are factory doped with Bestolife "2000"® with a torque factor of 0.90.



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