

# ASTM A53 Grade B- Technical Datasheet

## 1. Chemical & Mechanical Properties

C (%)	Mn (%)	P (%)	S (%)	Cu (%)	Ni (%)	Cr (%)	Mo (%)	V (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)
0.30 max	1.20 max	0.05 max	0.045 max	0.40 max	0.40 max	0.40 max	0.15 max	0.08 max	240 min	415 min	23 min

## 2. Equivalent / Alternative Grades

Parameter	API 5L Grade B (L245)	ASTM A106 Grade B	EN 10217-1 P235TR1
<b>Standard</b>	ISO 3183 / API 5L	ASTM A106	EN 10217-1
<b>C (%)</b>	0.26 max	0.30 max	0.16 max
<b>Cr (%)</b>	—	0.40 max	—
<b>Cu (%)</b>	—	0.40 max	—
<b>El (%)</b>	23 min	25 min	25 min
<b>Mn (%)</b>	1.20 max	0.29-1.06	1.20 max
<b>Mo (%)</b>	—	0.15 max	—
<b>Ni (%)</b>	—	0.40 max	—
<b>P (%)</b>	0.03 max	0.035 max	0.025 max
<b>S (%)</b>	0.03 max	0.035 max	0.020 max
<b>Tensile (MPa)</b>	415 min	415 min	360-500
<b>V (%)</b>	—	0.08 max	—
<b>Yield (MPa)</b>	245 min	240 min	235 min

## 3. Common Applications

- Higher-pressure steam, water & gas pipelines
- Oil & petrochemical service
- Structural applications requiring higher strength

## 4. Standard Conformance

ASTM A53 / ASME SA53

## 5. Disclaimer

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