

SPECIFICATIONS

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● ASTM

Specification		ASTM A672											
		A45	A50	A55	B55	B60	B65	B70	C55	C60	C65	C70	
Classification													
Application		-											
Chemical composition(%)	C(Max.)	0.17	0.22	0.28	0.20	0.24	0.28	0.31	0.18	0.21	0.24	0.27	
	Si(Max.)	-	-	-	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	0.15 ~ 0.40	
	Mn(Max.)	0.90	0.90	0.90	0.90	0.90	0.90	1.20	0.60 ~ 0.90	0.60 ~ 0.90	0.85 ~ 1.20	0.85 ~ 1.20	
	P(Max.)	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	
	S(Max.)	0.04	0.04	0.04	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	
	Others	-	-	-	-	-	-	-	-	-	-	-	
Mechanical properties	Tensile strength (Min.)	PSI	-	-	-	-	-	-	-	-	-	-	
		MPa	315 ~ 450	345 ~ 485	380 ~ 515	380 ~ 515	415 ~ 550	450 ~ 585	485 ~ 620	380 ~ 515	415 ~ 550	450 ~ 585	485 ~ 620
		kgf/mm ²	32.2 ~ 45.9	35.2 ~ 49.5	38.8 ~ 52.6	38.8 ~ 52.6	42.4 ~ 56.1	45.9 ~ 59.7	49.5 ~ 63.3	38.8 ~ 52.6	42.2 ~ 56.1	45.9 ~ 59.7	49.5 ~ 63.3
	Yield point (Min.)	PSI	-	-	-	-	-	-	-	-	-	-	
		MPa	165	185	205	205	220	240	260	205	220	240	260
		kgf/mm ²	16.9	18.9	21.0	21.0	22.5	24.5	26.6	21.0	22.5	24.6	26.6
	Elongation (min.)	30	28	27	27	25	23	21	27	25	23	21	
	Flattening test	-											
	Bending test	-											
	Hydrostatic test	Class 10	-										
Class 11		-											
Class 12		TEST											
Class 13		TEST											
Class 20		-		P = 2St/D									
Class 21		-											
Class 22		TEST											
Class 23		TEST											
NDT (Non-Destructive Test)	Class 10	-											
	Class 11	TEST(RT)											
	Class 12	TEST(RT)											
	Class 13	-											
	Class 20	-											
	Class 21	TEST(RT)											
	Class 22	TEST(RT)											
	Class 23	-											
Others	-												