

Group		Kit	Test	Standards	2026	2027	2028	2029	2030		
Material characterisation	Chemistry	M-Chem-1	Chemistry - Aluminium base	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-2	Chemistry - Nickel base	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-3	Chemistry - Iron base	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-4	Chemistry - Titanium base	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-5	Chemistry - Cast material	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-6	Chemistry - Cobalt base	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-7	Chemistry - Powder	All Chemical applicable test methods	x	x	x	x	x		
		M-Chem-8	Chemistry - Cast Aluminium	All Chemical applicable test methods	x		x		x		
		M-Chem-9	Chemistry - Magnesium base	All Chemical applicable test methods		x	x	x	x		
		M-Chem-10	Chemistry - Copper base	All Chemical applicable test methods	x	x	x	x	x		
	Metallography	M-Micr-1	Grain size Al	ASTM E112 (25)	x	x	x	x	x		
		M-Micr-2	Grain size Ni	ASTM E112 (25)	x	x	x	x	x		
		M-Micr-3	Grain size Ti	ASTM E112 (25)	x	x	x	x	x		
		M-Micr-4	Grain size Fe	ASTM E112 (25)	x	x	x	x	x		
		M-Micr-7	Inclusion rate	ASTM E45 (25)	x	x	x	x	x		
		M-Micr-8	Porosity	All porosity measurement test methods	x	x	x	x	x		
	Powders	M-Dens-1	Apparent Density	ASTM B417-25, ASTM B703-21, ASTM B212-25, ISO 3923-1-2018	x	x	x	x	x		
		M-Dens-2	Tap Density	ASTM B527-24, ISO 3953-2025	x	x	x	x	x		
		M-Flow-1	Flow rate	ASTM B213-25,ISO 4490-2018	x	x	x	x	x		
		M-PSize-1	Particle Size Distribution - Laser Method	ASTM B822-25,ISO 13320-2020	x	x	x	x	x		
		M-PSize-2	Particle Size Distribution - Sieve Analysis	ASTM B214	x	x	x	x	x		
	Physical measurement	M-Elec-1	Conductivity	EN 2004-1-1993	x	x	x	x	x		
Mechanical testing	Quasi Static	Tensile	F-Tens-1	Wedge Tensile	ASTM F606/F606M-25a		x	x	x	x	
			F-Tens-2	Tensile Strength	NASM 1312-8 (3)	x	x	x	x	x	
			M-Tens-1	Tensile	ASTM E8/E8M-25, ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x	
			M-Tens-2	Tensile	ASTM E8/E8M -25, ASTM B557-15(2023), ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x	
			M-Tens-3	Tensile	ASTM E8/E8M-25, ASTM B557-15(2023), ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x	
			M-Tens-4	Tensile	ASTM E8/E8M-25, ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x	
			M-Tens-5	Tensile	ASTM E8/E8M-25, ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x	
		M-Tens-6	Tensile	ASTM E8/E8M-25, ISO 6892-1-2019, EN 2002-001-2005	x	x	x	x	x		
		M-Tens-7	Elevated TemperatureTensile	ASTM E21-20, ISO 6892-2-2018, EN 2002-002-2005	x	x	x	x	x		
		Shear	F-Shear-1	Single shear	NASM 1312-20 (3)	x	x	x	x	x	
			F-Shear-2	Double Shear	NASM 1312-13 (2)	x	x	x	x	x	
		Compression	M-Comp-1	Compression	ASTM E9-19(2025)e1	x	x	x	x	x	
		Bearing	M-Bear-1	Bearing - Aluminium	ASTM E238 -17a(2025)		x		x		
			M-Bear-2	Bearing - Steel	ASTM E238 -17a(2025)	x		x		x	
		Fracture Toughness	M-K1C-1	Fracture toughness - CT	ASTM E399 (24)	x	x	x	x	x	
			M-K1C-2	Fracture toughness - CT	ASTM E399 (24)	x		x		x	
			M-J1C-1	Fracture toughness - Bend - CT	ASTM E1820-25de1	x	x	x	x	x	
		Creep & Stress Rupture	M-CTOD-1	CTOD testing	ISO 12135 (2021)	x	x	x	x	x	
			M-Creep-1	Creep	EN 2002-005 (2008), ASTM E139 (24), ISO 204 (2023)	x	x	x	x	x	
			M-Rupt-1	Stress rupture	EN 2002-005 (2008), ASTM E139 (24), ISO 204 (2023)	x	x	x	x	x	
	Dynamic	Fatigue	F-Fatig-1	Tensile fatigue	NASM 1312-11 (3)	x	x	x	x	x	
			F-Fatig-2	SLS	NASM 1312-21 (2)		x		x		
			M-Fatig-1	Low Cycle Fatigue	ASTM E606/E606M (21)	x	x	x	x	x	
			M-Fatig-2	High Cycle Fatigue	ASTM E466 (21), EN 6072-2012		x		x		
			M-Fatig-3	High Cycle Fatigue	ASTM E466 (21), EN 6072-2012	x		x		x	
		Crack Propagation	M-dadN-1	Crack propagation - dadN - CT	ASTM E647-15e1		x		x		
			M-dadN-2	Crack propagation - dadN - MT	ASTM E647-15e1	x		x		x	
			M-KBr	Crack propagation	STM E647, PR-6610		x		x		
			M-FC7	Crack propagation	STM E647, PR-6610	x		x		x	
			M-RCurv-1	R Curve	ASTM E561-20, AITM 1-0043		x		x		
		Impact	M-Impact-1	Charpy test - KCV	ASTM E23 (25), ISO 148-1 (2016)	x	x	x	x	x	
			M-Impact-2	Charpy test - KCV	ASTM E23 (25), ISO 148-1 (2016)	x	x	x	x	x	
			M-Impact-3	Charpy test - IZOD	ASTM E23 (25), ISO 148-1 (2016), B5131-1 (1961)	x	x	x	x	x	
			Hardness	M-Hard-1	Rockwell C / Vickers Hardness	ASTM E18 (25), ISO 6508-1 (2023), ISO 6507-1 (2023), ASTM E92 (23)	x	x	x	x	x
				M-Hard-2	Brinell/Rockwell B Hardness	ASTM E18 (25), ASTM E10 (23), ISO 6506-1 (2014), ISO 6508-2 (2023)	x	x	x	x	x
				M-Hard-3	Carburized depth measurement	ISO 6507-1 (2023), ISO 18203 (2016), ASTM E1077 (14(2021)), ASTM E384 (22)	x	x	x	x	x
				M-Hard-4	Rockwell/Brinell Hardness	ASTM E18 (25), ISO 6508-1 (2023), ASTM E10 (23), ISO 6506-1 (2014)	x	x	x	x	x
				M-Hard-5	Rockwell Y Hardness	ASTM E18 (25)	x	x	x	x	x
Development and lifecycle	Machining	M-Mach-1	Machining	All applicable methods	x		x		x		
		M-Mach-2	XRD	EN 15305:2008	x		x		x		
		M-ShotP-1	Shot peening	ISO 3310-1:2016, ISO 6507-1:2023	x		x		x		
		M-Micr-9	Welding	ISO 6520-1 (2007), EN ISO 17639 (2025)	x	x	x	x	x		
		M-Coat-1	Thickness - Micro + Eddy current	ISO 2808-2019,ISO 2360-2017, ISO 1463 (2021), ASTM B487 (24)	x	x	x	x	x		
	Surface Treatment	M-Coat-2	Adhesion - Cross cut area	ISO 2409-2020, ISO 2812-2-2018	x	x	x	x	x		
		M-Coat-3	Thickness - Nickel plating	ISO 1463-2021	x	x	x	x	x		
		M-Chem-11	Surface treatment bath	AITM 3-0030, AITM 3-0032, AITM 3-0035, AITM 3-0036		x		x			
		F-Coat-1	Thickness	ASTM B487-20		x		x			
		M-ProjTher-1	Projection Plasma Spray – Picture analysis	DMC 0216 B	x		x		x		
	Degradation/ Corrosion	M-ProjTher-2	Projection Plasma Spray – Adhesion	ASTM C633	x		x		x		
		M-Micr-5	Alpha case depth determination	EN 2003-009 (2007)	x	x	x	x	x		
		M-Micr-6	Alloy depletion	All depletion depth measurement test methods	x	x	x	x	x		
		M-Corr-1	Salt Spray	ASTM B117-19, ISO 9227-2022+A1(2024)	x	x	x	x	x		
		M-Corr-2	Salt Spray	ISO 9227-2022, ASTM B117-19	x	x	x	x	x		
		M-Corr-3	Stress corrosion	ASTM G44-21, ASTM G47-22, ASTM G49-85 (2023)e1	x	x	x	x	x		
		M-Corr-4	Pitting and Crevice Corrosion test on Duplex Stainless steel	ASTM G48 Method A-25,ASTM G46-21	x	x	x	x	x		
		M-Corr-5	Pitting and Crevice Corrosion test on Duplex Stainless steel	ASTM G48 Method B-25	x	x	x	x	x		
		M-Corr-6	Intermetallic Phase in Duplex Stainless Steel	ASTM A923 Method C-25	x	x	x	x	x		
		M-Corr-7	Intergranular Corrosion	ASTM G28 Method A-24	x	x	x	x	x		
		M-Corr-8	Intergranular Corrosion	ASTM G28 Method B-24	x	x	x	x	x		
		M-Corr-9	Susceptibility to Intergranular Attack in Austenitic Stainless Steel	ASTM A262 Practice A & E-15(2021)	x	x	x	x	x		
		M-Corr-10	Susceptibility to Intergranular Attack in Austenitic Stainless Steel	ASTM A262 Practice B-15(2021)	x	x	x	x	x		
		M-Corr-11	Susceptibility to Intergranular Attack in Austenitic Stainless Steel	ASTM A262 Practice C-15(2021)	x	x	x	x	x		
		M-Embr-1	Hydrogen embrittlement	EN 2832-93 or ASTM F519-23		x		x			