「Duplex Stainless Steel Sanitary Strainer」

Applications incude Filtration process in Food industry and Medical industry

SUS821L1
(NSSC 2120®)

SUS329J1 equiv.
(NSSC®2351)

※ SUS821L1 is a substitute for SUS304 and SUS329J1 is a substitute for SUS316.

NSSC and NSSC 2120 are registered trademarks of NIPPON STEEL Stainless Steel Corporation.

Overcome the problem of insufficient strength of SUS304 and SUS316 wire mesh

High Strength

More than twice the strength and superior wear resistance of SUS304 and SUS316L.

High Corrosion Resistance

SUS821L1 has corrosion resistance equivalent or superior to SUS304, and SUS329J1 has corrosion resistance superior to SUS316L.

Contributes to running cost saving.

Polishability

Excellent buffing and polishing properties

Thermal Low-Expansion

Less thermal expansion and contraction than SUS304.

Price Stability

Rare metals Low content

Eco Friendly

＜Manufacturer/Distributor＞

OKUTANI 1895

＜Joint Development＞

NS-Stainless Corporation

Applicable specification of Laser drilled Duplex Stainless Steel and Perforated Duplex Stainless Steel

①SUS821L1(NSSC 2120®)

Drilling Method	Hole size (mm)	Thickness (mm)	Pitch (mm)	Max. Open area	Mesh (Equivalent)	Max.Sheet Size (mm)
Laser	φ0.035	0.5t		3.5%	#400	900×1800
	φ0.045			5.0%	#300	
	φ0.075			6.5%	#200	
	φ0.110			10.0%	#150	
	φ0.155			14.0%	#100	
	φ0.200			17.0%	#80	
	φ0.270			19.0%	#60	
	φ0.320			22.0%	#50	
	φ0.410			22.0%	#40	
	φ0.560			25.0%	#30	
Perforating	φ0.700		P1.5	19.7%	#24	500×500
	φ0.800		P1.6	22.7%	#24	
	φ0.900		P1.8	22.7%	#20	
	φ1.000		P2	22.7%	#18	

②SUS329J1 equivalent (NSSC®2351)

Drilling Method	Hole size (mm)	Thickness (mm)	Pitch (mm)	Max. Open area	Mesh (Equivalent)	Max.Sheet Size (mm)
Laser	φ0.410	0.8t		22.0%	#40	900×1800
	φ0.560			25.0%	#30	
Perforating	φ0.800		P1.6	22.7%	#24	500×500
	φ0.900		P1.5	32.6%	#20	
	φ1.000			40.3%	#18	

※Hole pattern of Laser is Actionlaser's usual pattern. Equally spaced rows of holes, with holes equally spaced along each row but not producing a repetitive triangular or square pitch pattern of holes.
※Hole pattern of Perforating is 60 degree triangle.

Actionlaser LASER PERFORATED SCREENS

SUPER PUNCHING Registered Trademark in 36 country

Main chemical composition・Pitting Resistance Equivalent Number (PREN)

(wt%)

Classification	Cr	Ni	Mo	Mn	N	Rare metal *1	PREN *2
① SUS821L1 (NSSC 2120®)	21	2	-	3	0.17	23	25
② SUS329J1 equivalent (NSSC®2351)	23	5	1	1	0.17	29	30
SUS304	18	8	-	1	0.04	26	19
SUS316L	18	12	2.5	1	0.02	32.5	26

●Compared to conventional stainless steel, Duplex Stainless Steel has a higher Cr, lower Ni, Lower Mo, higher N.
It is an eco-friendly material with low content of rare metals.
●NSSC 2120® and NSSC 2351® have a higher PREN than SUS 304 and SUS 316L, respectively.

*1 Sum total of rare metal=Cr%+Ni%+Mo%
*2 PREN=Cr%+3.3×Mo%+16×N%

Mechanical propaties (reference value)

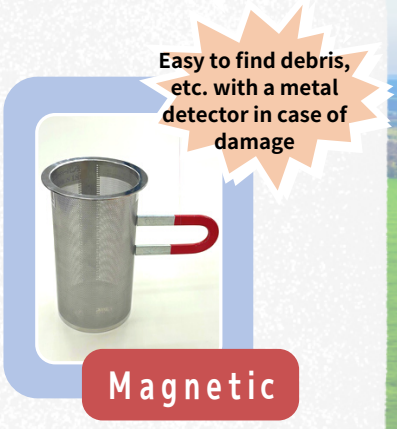
Classification	0.2% Yield Strength N/mm²	Tensil Strength N/mm2	Elongation %	Hardness HV
① SUS821L1 (NSSC 2120®)	570	792	31	256
② SUS329J1相当 (NSSC®2351)	613	830	29	264
SUS304	300	654	56	170
SUS316L	281	561	53	143

●Compared to conventional Stainless Steel,
✓Twice the strength(0.2% YS)→Thin wall and light weight are possible, also it's excellent springiness.
✓High Hardness→It has good abrasion resistance and is not easily dented when hit by objects.

Physical propaties (reference value)

Classification	Density g/cm3	Modulus of longitudinal elasticity kN/mm²	Specific heat kJ/kg/°C	Thermal conductivity w/m/°C	Coefficient of linear expansion ×10⁻⁶/°C	Magnetic
① SUS821L1 (NSSC 2120®)	7.80	200	0.5	16.0	13.7	Yes
② SUS329J1 equivalent (NSSC®2351)	7.80	200	0.5	15.2	13.1	Yes
SUS304	7.93	193	0.5	16.3	17.3	No
SUS316L	7.98	193	0.5	16.3	16.0	No

●Compared to conventional austenitic stainless steel,
✓Magnetic→Foreign substances can be detected and removed by magnets.
✓Small Coefficient of linear expansion→Expansion, contraction, and thermal deformation due to heating or cooling are also small.



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