Nittoku

Functionality Comparison Table For Filter Mesh

Product name		NNo.		TNo.	PE	PP
Yarn type		Nylon		Polyester	Polyethylene（HDPE）	Polypropylene
		Nylon 6 Strong	Nylon66 Strong	Filament Strong	Filament	Filament Strong
Tension (g /D)	Normal conditions	6.4～9.5	6.5～9.5	6.3～9.0	5.0～9.0	7.5～9.0
	Humid conditions	5.9～8.0	6.0～8.5	6.3～9.0	5.0～9.0	7.5～9.0
Strength ratio for humidity (%)		84～92	90～95	100	100	100
Strength against hooking (g/D)		10.7～14.3	11.0～14.5	9.0～11.0	6.2～13.0	11.0～14.0
Strength of knot (g/D)		5.4～6.5	4.0～6.0	4.3～4.8	3.5～5.7	4.5～6.0
Elongation (%)	Normal conditions	16～25	15～22	7～17	8～35	15～25
	Humid conditions	20～30	20～28	7～17	8～35	15～25
Elasticity (%) at 3% extension		98～100	98～100	95～100	85～97	90～100
Initial extensional resistance (Apparent Young's modulus)	(g/D)	27～50	40～60	90～160	35～100	40～120
	(kg/mm²)	280～510	400～600	1100～2000	300～850	330～1000
Specific gravity		1.14		1.38	0.94～0.96	0.91
Moisture percentage	Nominal value	4.5		0.4	0	0
	Normal conditions 20°C, 65% RH	3.5～5.0		0.4～0.5	0	0
	Other conditions 20°C, 20% RH 20°C, 95% RH	20%RH：1.0～1.8 95%RH：8.0～9.0		20%RH：0.1～0.3 95%RH：0.6～0.7	20%RH：0 95%RH：0～0.1	20%RH：0 95%RH：0～0.1
Heat resistance	Softening point	180°C	230°C～235°C	238°C～240°C	100°C～115°C	140°C～160°C
	Fusion point	215°C～220°C	250°C～260°C	255°C～260°C Combusts gradually while melting. Not self-combustible.	125°C～135°C Combusts gradually while melting.	165°C～173°C Combusts gradually while melting.

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Weather resistance (influence of exposure)	Strength deteriorates slightly and color may change slightly.	Almost no influence.	Strength deteriorates slightly.	Strength deteriorates slightly.
Acid resistance	Dissolved and partially decomposed by concentrated hydrochloric acid, concentrated sulfuric acid or concentrated nitric acid.	Almost no influence by concentrated hydrochloric acid, 75% sulfuric acid or concentrated nitric acid.	Almost no influence by concentrated hydrochloric acid or concentrated sulfuric acid.	Almost no influence by concentrated hydrochloric acid, concentrated sulfuric acid or concentrated nitric acid.
Alkaline resistance	Shows little variation in strength when exposed to concentrated caustic soda solution and concentrated ammonia solution.	Shows little variation in strength when exposed to 10% caustic soda solution and concentrated ammonia solution.	Shows little variation in strength when exposed to concentrated caustic soda solution.	Shows little variation in strength when exposed to concentrated caustic soda solution and concentrated ammonia solution.
Resistance to other chemicals	Good chemical resistance.	Good chemical resistance.	Shows little variation.	Shows little variation.
Solvent resistance General solvent: alcohol, ether, benzene, acetone, gasoline, tetra chloroethylene	Not soluble by general solvents: phenol (phenol,m-cresol etc.), dissolved by concentrated formic acid, expanded by glacial acetic acid, and melted by heat.	Not soluble by general solvents: dissolved by heated m-cresol, heated o-chlorophenol, heated nitrobenzene, dimethylformamide or 40°C phenol/ethane tetrachloride liquid mixture.	Insoluble in alcohol, ether, and acetone. Expands when exposed to benzene and gasoline at high temperatures. Slowly dissolves in perchloroethylene and ethane tetrachloride at high temperatures.	Insoluble in alcohol, ether, and acetone. Expands when exposed to benzene at high temperatures. Slowly dissolves in perchloroethylene, ethane tetrachloride, carbon tetrachloride, cyclohexanone, monochlorobenzene, tetrahydronaphthalene, xylene, and toluene at high temperatures.
Generally used dyes	Acid, dispersed, and reactive chrome dyes.	Carrier dyeing or high temperature dyeing with dispersed, naphthol, vat, or soluble vat dye.	Generally dyed through solution dying with pigments.	Generally dyed through solution dying with pigments. Dyeing with dispersed dyes (for polypropylene) is also possible.
Insect and mold resistance	Perfect resistance.	Perfect resistance.	Perfect resistance.	Perfect resistance.