

DENKA NSBC

SBC (Styrene-Butadiene Copolymer)

Summary

NSBC is DENKA's trade name of Styrene-Butadiene Copolymer for general applications. NSBC is developed by DENKA's unique polymerization technology and have suitable combination between Styrene and Butadiene for excellent "Transparency" and "Processing". NSBC can be blended with GPPS in molding process. It's used in wide range of applications such as food packaging, clear cup, industrial tray etc.

Features

- ▶ GPPS impact modifier
- ▶ High transparency
- ▶ Cold temperature resistance
- ▶ Low density
(about 20%-30% lower than PVC and PET)

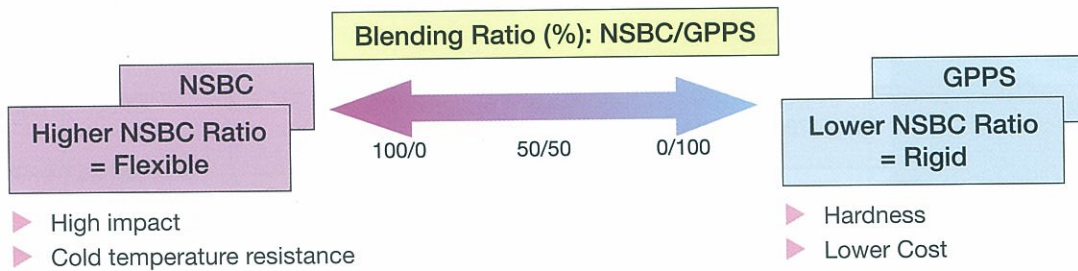
Processing

- ▶ Injection
- ▶ Extrusion
- ▶ Vacuum forming
- ▶ Thermo forming
- ▶ Blow molding



GPPS Modifier

One of NSBC's application is GPPS impact modifier. It can be blended together with GPPS to improve impact strength, maintaining transparency. And physical properties can be adjusted by blending ratio of GPPS and NSBC as follows :



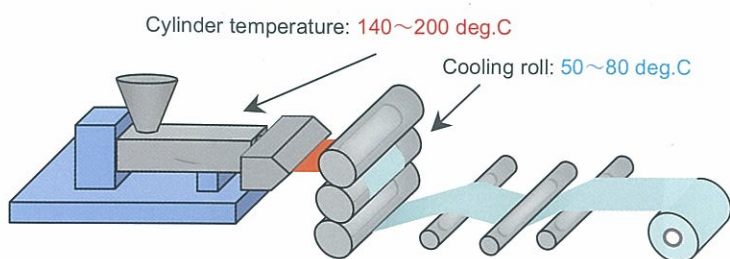
Applications



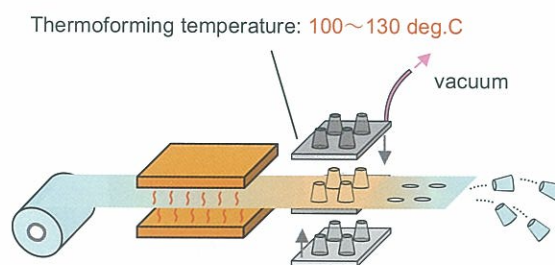
DENKA NSBC (General Properties)

Properties	Methods	Conditions	Units	NSBC210	NSBC211	NSBC220	NSBC722	NSBC811
				Standard	High Transparency Well Printing	High-Impact	Anti-Blocking	Anti-Blocking Anti-Stacking
				Non-Wax	Non-Wax	Non-Wax	In-Wax	In-Wax
MFR	ISO 1133	200°C 49N	g/10min	8	8	7	9	9
Tensile Stress at Yield	ISO 527-2	50mm/min	MPa	27	27	25	27	27
Tensile Stress at Break	ISO 527-2	50mm/min	MPa	18	18	14	18	18
Tensile Strain at Break	ISO 527-2	50mm/min	%	>230	>230	360	>230	>230
Flexural Stress	ISO 178	2mm/min	MPa	31	31	25	31	31
Flexural Modulus	ISO 178	2mm/min	MPa	1,590	1,590	1,350	1,590	1,590
Charpy Impact Strength	ISO 179	Notched, 23°C	Kg/m ²	3.0	3.5	6.0	3.5	3.5
Vicat Softening Temperature	ISO 306	10N	°C	80	80	76	79	79
Deflection Temperature Under Load	ISO 75-1.2	1.8MPa	°C	62	62	59	61	61
Density	ISO 1183	23°C	Kg/m ³	1.02	1.02	1.01	1.02	1.02
Sheet Haze Blending 50% GPPS	ISO 14782	0.3mmt	%	1.6	1.6	1.8	2.0	1.9
FDA 21CF177.140 Regulation*				-	√	√	√	√
EU Directive 10/2011 Regulation*				-	√	√	√	√

* Please contact us for details information.



Sheet extrusion process



Thermoforming process