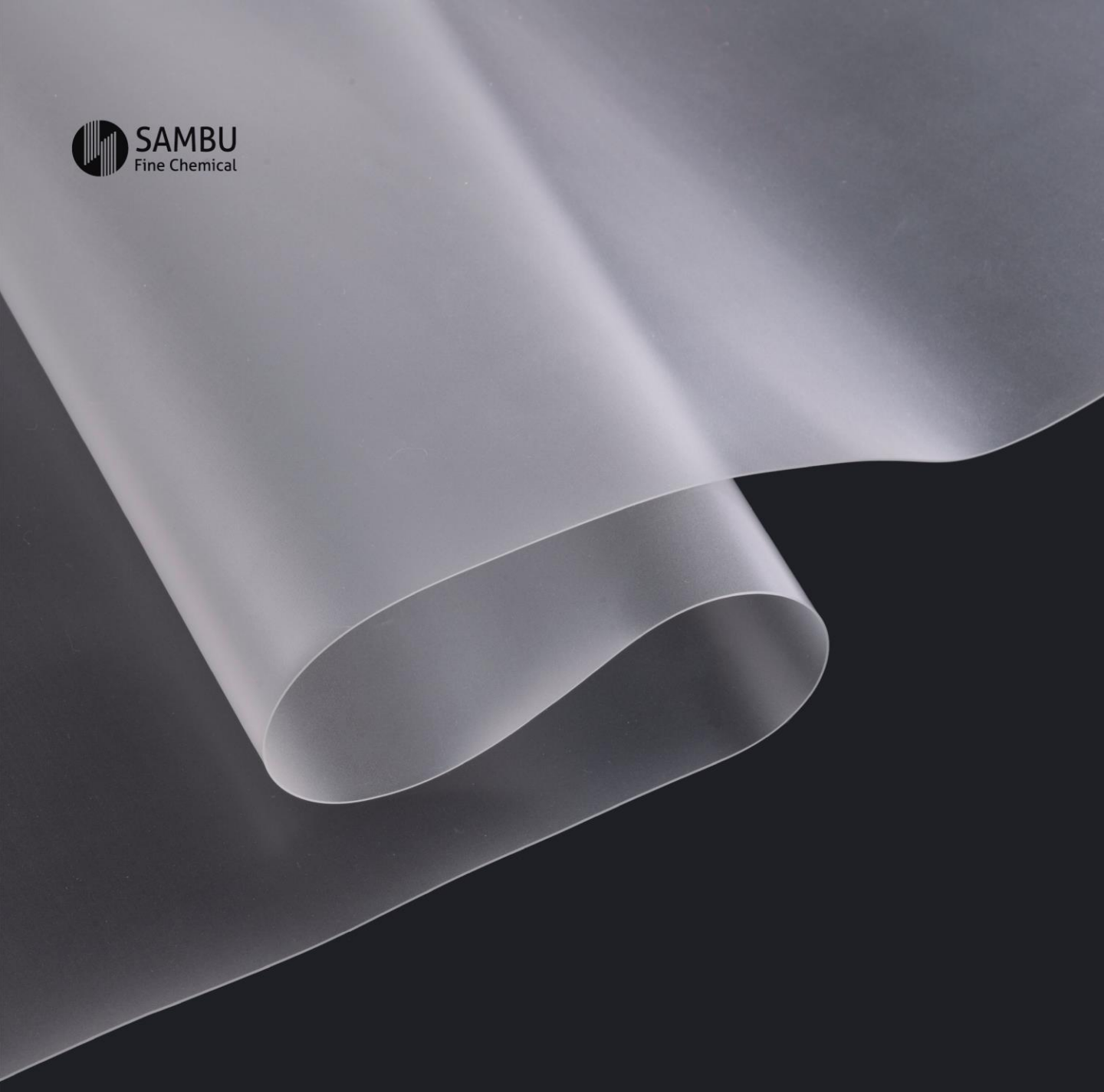
SAMBU
Fine Chemical



# SAMBU
# HOT-MELT
# INTRODUCTION
## VERSION 3

2023. July

# LOW MELTING TEMPERATURE HOT-MELT FILM

| Adhesive Films | | NASA-LQ | NASA-LQ BIO | NASA-MM | NASA-MM BIO | NASA-G3 |
|---|---|---|---|---|---|---|
| **Base polymer** | | TPU | TPU | TPU | TPU | TPU |
| **Spec** | Width(inch) | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44",54" |
| | Thickness(㎛) | 50~200 | 80-200 | 60~180 | 80-200 | 50~200 |
| **Carrier** | | PP | PP | Paper/PP | Paper/PP | PP |
| **Melting Point** | (℃) | 95±5 | 100±5 | 105±5 | 110±5 | 80±5 |
| **Melt Index** | 177℃, 2.16kg (g/10min) | 22-28 | 10-20 | 13-23 | 10-20 | 2-12 |
| **Working Condition** | Process Temperature(℃) | 100~120℃ | 100~120℃ | 115~120 | 115~120 | 90~110℃ |
| | Working Time(sec) | 30-35 | 30-35 | 20-25 | 20-25 | 30-35 |
| | Oil Pressure(kgf/㎠) | 60-70 | 60-70 | 45-60 | 45-60 | 60-70 |
| | Air Pressure(kgf/㎠) | 3-7 | | | | 3-7 |
| **Applicable Material** | | | | | | |
| **Textile** | Cotton Span(Lycra) | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Acetate | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Polyester | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Glossy Nylon | Good | Good | Good | Good | Good |
| | Felt (Non-woven) | Excellent | Excellent | Excellent | Excellent | Excellent |
| **Synthetic Resin** | TPO(Thermo Plastic Olefin) | Good | Good | | | Good |
| | PC(Polycarbonate) | Excellent | Excellent | Excellent | Excellent | Excellent |
| | PET(Polyethylene Terephthalate) | Good | Good | Good | Good | Good |
| | EVA(Ethylene Vinyl Acetate) | Good | Good | | | Good |
| | PS(Polystyrene, Styrofoam) | Good | Good | Good | Good | Good |
| | ABS(Acrylonitrile Butadiene Styrene) | Excellent | Excellent | Excellent | Excellent | Excellent |
| | FRP(Fiber Reinforced Plastics) | Good | Good | Good | Good | Good |
| **Inorganic compound** | Rubber | | | | | |
| | Synthetic Leather | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Natural Leather | Excellent | Excellent | Good | Good | Excellent |
| **Material** | Aluminum | Excellent | Excellent | Good | Good | Excellent |
| | Stainless | Excellent | Excellent | Good | Good | Excellent |
| | Copper | Excellent | Excellent | Good | Good | Excellent |
| **Others** | Wood(MDF) | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Paper | Excellent | Excellent | Good | Good | Excellent |
| | Glass | | | | | Good |
| **Remark** | NASA-LQ : Stretchable, low melting temperature for sensitive materials<br>NASA-LQ BIO : Bio-based version of NASA-LQ<br>NASA-MM : Low-melting point, thin, soft, light and high boding score<br>NASA-MM BIO : Bio-based version of NASA-MM<br>NASA-G3 : Bonding with Nylon, fine jacquard woven & Epoxy, PC, Acryl plate | | | | | |

# NASA-T SERIES HOT-MELT FILM

| Adhesive Films | | NASA-T | NASA-T NP | NASA-T1 | NASA-T REC | NASA-TT | NASA-TT BIO | NASA-TT BIO CL |
|---|---|---|---|---|---|---|---|---|
| **Base polymer** | | TPU | TPU | TPU | TPU | TPU | TPU | TPU |
| **Spec** | Width(inch) | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44“,47",54" | 44“,47",54" |
| | Thickness(㎛) | 50~300 | 50~300 | 40~230 (Main:150) | 50~300 | 60~180 | 70~210 | 70~210 |
| **Carrier** | | Paper/PP | Paper/PP | Paper/PP | Paper/PP | Paper/PP | Paper/PP | NO Carrier |
| **Melting Point** | (℃) | 118±5 | 118±5 | 118±5 | 118±5 | 118±5 | 120±5 | 120±5 |
| **Melt Index** | 177℃, 2.16kg (g/10min) | 8-14 | 8-14 | 8-14 | 8-14 | 8-14 | 8-16 | 8-16 |
| **Working Condition** | Process Temperature(℃) | 130~150 | 130~150 | 130~150 | 130~150 | 130~150 | 130~150 | 120~140 |
| | Working Time(sec) | 30-35 | 30-35 | 30-35 | 30-35 | 20-25 | 20-25 | |
| | Oil Pressure(kgf/㎠) | 60-70 | 60-70 | 60-70 | 60-70 | 45-60 | 45-60 | |
| | Air Pressure(kgf/㎠) | | | | | | | 3~10 |
| **Applicable Material** | | | | | | | | |
| **Textile** | Cotton Span(Lycra) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Acetate | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Polyester | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Glossy Nylon | Good | Good | Good | Good | Good | Good | Good |
| | Felt (Non-woven) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| **Synthetic Resin** | TPO(Thermo Plastic Olefin) | | | | | | | |
| | PC(Polycarbonate) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | PET(Polyethylene Terephthalate) | Good | Good | Good | Good | Good | Good | Good |
| | EVA(Ethylene Vinyl Acetate) | | | | | | | |
| | PS(Polystyrene, Styrofoam) | Good | Good | Good | Good | Good | Good | Good |
| | ABS(Acrylonitrile Butadiene Styrene) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | FRP(Fiber Reinforced Plastics) | Good | Good | Good | Good | Good | Good | Good |
| **Inorganic compound** | Rubber | | | | | | | |
| | Synthetic Leather | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Natural Leather | Good | Good | Good | Good | Good | Good | Good |
| **Material** | Aluminum | Good | Good | Good | Good | Good | Good | Good |
| | Stainless | Good | Good | Good | Good | Good | Good | Good |
| | Copper | Good | Good | Good | Good | Good | Good | Good |
| **Others** | Wood(MDF) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Paper | Good | Good | Good | Good | Good | Good | Good |
| | Glass | | | | | | | |
| **Remark** | NASA-T : For open mesh, PU Skin coating<br>NASA-T NP: UV enhanced version of NASA-T<br>NASA-T1 : Softer and lighter than NASA-T 0.2mm, Upgrade version of NASA-T<br>NASA-T REC : Recycled version of NASA-T<br>NASA-TT : Thin, soft, light, and high bonding score version Hot-melt.<br>NASA-TT BIO : Bio-based version of NASA-TT<br>NASA-TT BIO CL : NO carrier Bio-based version of NASA-TT | | | | | | | |

# SPECIAL HOT-MELT FILM

| Adhesive Films | | NASA-600 | NASA-V | NASA-Q | NASA-100PL | NASA-100+ | NASA-150+ |
|---|---|---|---|---|---|---|---|
| **Base polymer** | | TPU | TPU | TPU | TPO | TPO | TPO |
| **Spec** | Width(inch) | 44“,47",54" | 47” | 44“,47",54" | 44" | 44”, 54" | 44”, 54" |
| | Thickness(㎛) | 50~300 | 170, 250, 400, 500 | 50~300 | 50/100 | 35~50 | 35~50 |
| **Carrier** | | Paper/PP | Paper/PP | Paper/PP | Paper | No RP | No RP |
| **Melting Point** | (℃) | 118±5 | 118±5 | 115±5 | 100±5 | 100±5 | 70±5 |
| **Melt Index** | 177℃, 2.16kg (g/10min) | 20-26 | 8-14 | 14-20 | 2-6 | 2-8 | 35±5 |
| **Working Condition** | Process Temperature(℃) | 130~150 | 130~150℃ | 130~150℃ | 100~120℃ | 100~120℃ | 100~120℃ |
| | Working Time(sec) | 30-35 | 30-35 | 30-35 | 30-35 | 30-35 | 30-35 |
| | Oil Pressure(kgf/㎠) | 60-70 | 60-70 | 60-70 | 60-70 | 60-70 | 60-70 |
| | Air Pressure(kgf/㎠) | | | | 3-7 | 3-7 | 3-7 |
| **Applicable Material** | | | | | | | |
| **Textile** | Cotton Span(Lycra) | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Acetate | Excellent | Excellent | Excellent | Good | Good | Good |
| | Polyester | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| | Glossy Nylon | Good | Good | Good | Good | Good | Good |
| | Felt (Non-woven) | Excellent | Excellent | Excellent | Good | Good | Good |
| **Synthetic Resin** | TPO(Thermo Plastic Olefin) | | | | Excellent | Excellent | Excellent |
| | PC(Polycarbonate) | Excellent | Excellent | Excellent | Good | Good | Good |
| | PET(Polyethylene Terephthalate) | Good | Good | Good | | | |
| | EVA(Ethylene Vinyl Acetate) | | | | Excellent | Excellent | Excellent |
| | PS(Polystyrene, Styrofoam) | Good | Good | Good | | | |
| | ABS(Acrylonitrile Butadiene Styrene) | Excellent | Excellent | Excellent | | | |
| | FRP(Fiber Reinforced Plastics) | Good | Good | Good | | | |
| **Inorganic compound** | Rubber | | | | Good | Good | Good |
| | Synthetic Leather | Excellent | Excellent | Excellent | Good | Good | Good |
| | Natural Leather | Good | Good | Good | Good | Good | Good |
| **Material** | Aluminum | Good | Good | Good | | | |
| | Stainless | Good | Good | Good | | | |
| | Copper | Good | Good | Good | | | |
| **Others** | Wood(MDF) | Excellent | Excellent | Excellent | Good | Good | Good |
| | Paper | Good | Good | Good | Good | Good | Good |
| | Glass | | | | Good | Good | Good |
| **Remark** | NASA-600 : For close / fine mesh, PU Skin coating<br>NASA-V : TPU with Hot-melt film layer; Two layer Hot-melt.<br>NASA-Q : For stretchable substrate<br>NASA-100PL : EVA foam and polyester Textile<br>NASA-100+ : EVA foam and Polyester Textile<br>NASA-150+ : EVA foam and polyester Textile (Melting point is lower than NASA-100+) | | | | | | |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