

Product Information

PTFE Micro powder AW-321

The product

Fluoro additive AW-321 is a white free flowing PTFE powder specialized for use as an additive to impart low surface energy and other fluoropolymer attributes. AW-321 is well suited for added in inks and coatings where a narrow particle size distribution is desired. With plastics and rubbers, it could improve lubricity and wear resistance. Added to lubricants, it can enhance performance under severe conditions. AW-321 can be used at temperature from -190°C to 250°C(-310°F to 480°F).

AW-321 is generally designed to be used as an additive, although it can also be used alone as a dry lubricant. It is unsuitable to be used as a molding or extrusion resin to replace for any of the high molecular weight PTFE resin. AW-321 is inert to all chemicals and solvents. It is a good electrical insulator, does not absorb water, and is highly resistant to weathering.

Applications

AW-321 is used as an additive (at approximately 1-3% by weight) in printing inks to improve certain properties, such as rub resistance, slip, surface smoothness and gloss. It can also reduce the "blocking". Typically, AW-321 is used in combination with polyethylene waxes to get the property modification. Due to its small particle size and narrow particle size distribution, AW-321 can be used in a variety of coating system to improve nonstick, antifriction, corrosion inhibition properties. It can also reduce the friction coefficient and increase the rub resistance. Plastics and elastomers containing AW-321 have shown improved lubricity and reduced friction and wear. Typical loadings of 5-20% by weight were used.

Property	Test method	Unit	Specification	Typical value
Average Bulk Density	ASTM D4895	g/l	200-600	300
Melting Point	ASTM D4894	°C	325 ± 5	325 ± 5
Average Particle Size	Laser Diffraction	um	1-7	D10<1, D50=4, D90<8
Specific Surface Area	ASTM D4567	m2/g	4 ~ 15	5 ~ 10
Whiteness	Company standard	-	White	White

Packing:

AW-321 is packaged in 25 kg/ carton. 9, 18 or 27 cartons are packaged on one pallet for easy shipping, handling and storage.

Transportation& Storage:

Before using AW-321 please read the Material Safety Data Sheet(MSDS-available from Fulcrum) carefully.

Open and use containers only in well-ventilated areas using local exhaust ventilation. Vapor and fumes liberated during hot processing, or from

smoking tobacco or cigarettes contaminated with AW-321, may cause flu-like symptoms(chill, fever, sore throat). Vapor and fumes liberated during hot processing should be exhausted completely from work area. Contamination of tobacco with AW-321 should be avoided. Mixtures with some finely divided metals, such as magnesium or aluminum, can be flammable or explosive under some conditions.