

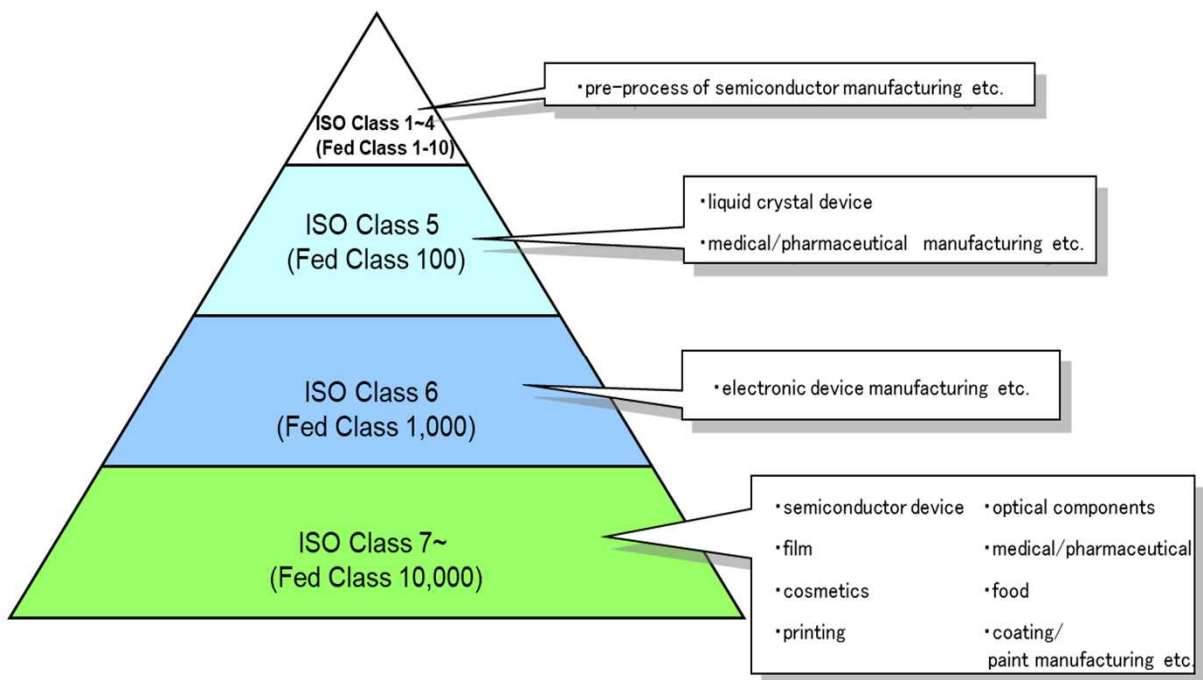
Cleanroom Cleaning

A cleanroom is an enclosed space where strict contamination control is maintained. In other words, the level of aerosol particles and airborne microorganisms in the air is controlled to stay within the limited cleanliness level. There is also required degree of cleanliness maintained for the objects inside the room such as equipment, chemicals, and water supplied to the room. If necessary, environmental conditions like temperature, humidity and pressure are managed carefully as well.

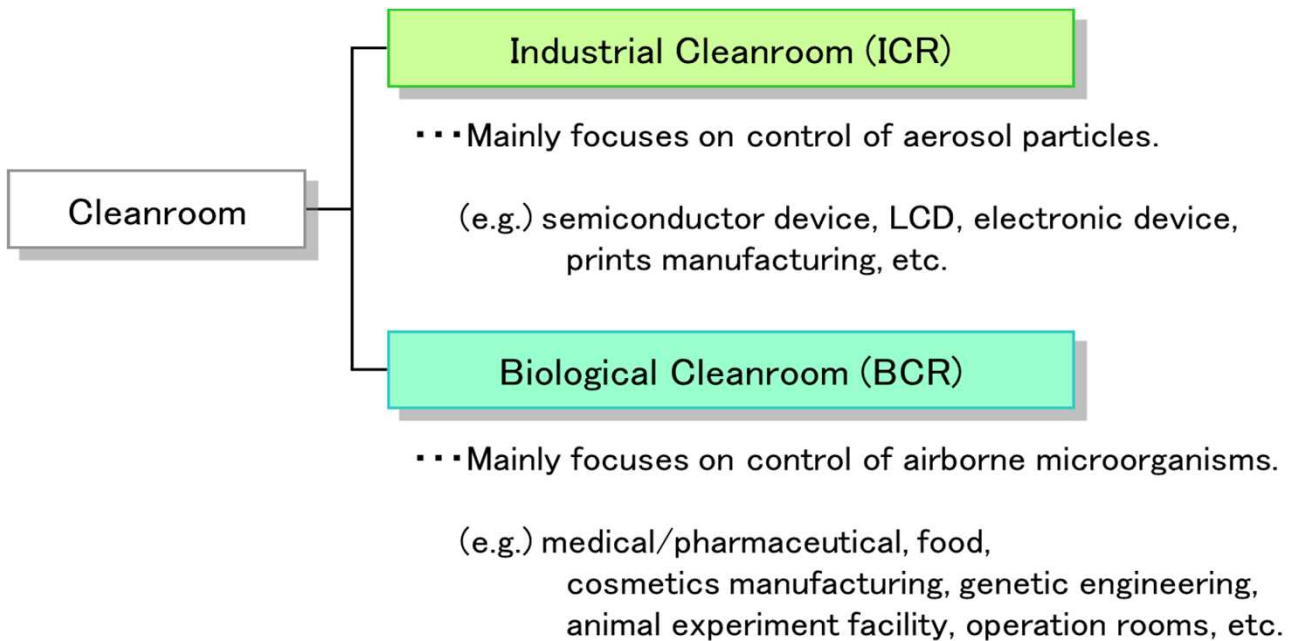
At Sanipro, we offer specialized cleaning services from post-construction total cleanup to daily and periodic cleaning, customized to fit the use and requirement of cleanliness degrees.

Classes of Cleanroom Technology

Cleanroom technology is utilized in various fields.



Types of Cleanroom (Intended use)



Key Purpose of Cleanroom Cleaning

Particles and dust accumulated on the floor become scattered repeatedly as workers walk.

This type of cleaning is not intended for aesthetics appeal, but for reducing the risk of pollution and contamination of the products, by maintaining cleanliness degree.

Types of Cleanroom Cleaning

<Daily Cleaning>

For places where the risk for contamination is high, particularly where personnel movement and activities are active (e.g. changing area, entry/exit area, etc.). To prevent the accumulation and spreading of possible pollution (particles and dust) that could contaminate the cleanroom, it is strongly advised to frequently perform the cleaning.

Target areas: floor, door, pass box, air shower

<Periodic Cleaning>

For places where it is difficult to perform daily cleaning, with lower level of contamination risk. The frequency of cleaning should be rather low accordingly.

Target areas: wall surface, ceiling surface, ducts/pipes, lighting fixture, etc.

<Specialized Cleaning>

Cleaning at contaminated state such as building post-construction or renovation. It is strongly advised to perform gradual cleaning until the cleanliness reaches the acceptable level.

Rough cleaning (removal of coarse particle contamination of particle size exceeding 50 μm) → Normal cleaning (removal of particle contamination of particle size 10 μm ~ 50 μm) → Precision cleaning (removal of residual particle contamination of particle size less than 10 μm)

Cleanroom Cleaning Section & Frequency

		Cleaning Details			
		Daily Cleaning		Periodic Cleaning	
		Methods	Frequency	Methods	Frequency
Sections	Ceiling	Under Ceiling	1	Wet-wiping with clean water	once/3 months
			2	Wiping with cleanroom-only detergent/solvent	once/6 months
		Above Ceiling (ceiling plenum)	1	Dust removal by cleanroom-only vacuum cleaner	once/12 months
			2	Wet-wiping with clean water	once/12 months
	3		Wiping with cleanroom-only detergent/solvent	once/12 months	
	Wall	Wall Surface	1	Wet-wiping with clean water	once/3 months
			2	Wiping with cleanroom-only detergent/solvent	once/6 months
		Joint/Seal Part	1	Wet-wiping with clean water	once/3 months
			2	Wiping with cleanroom-only detergent/solvent	once/6 months
		Return Shaft	1	Dust removal by cleanroom-only vacuum cleaner	once/3 months
			2	Wet-wiping with clean water	once/3 months
	3		Wiping with cleanroom-only detergent/solvent	once/3 months	
	Floor	Floor Surface - Flat	1	Dust removal by cleanroom-only vacuum cleaner	once/day
			2	Wet-wiping with clean water	once/day
			3	Wiping with cleanroom-only detergent/solvent	once/month
		Floor Surface - Punched Grating	1-1	Dust removal by cleanroom-only vacuum cleaner	once/day
			1-2	Wet-wiping with clean water	once/day
			3	Wiping with cleanroom-only detergent/solvent	once/month
		Underfloor (chamber)	1	Dust removal by cleanroom-only vacuum cleaner	once/12 months
			2	Wet-wiping with clean water	once/12 months
3	Wiping with cleanroom-only detergent/solvent		once/12 months		
Openings	Door / Window	1	Wet-wiping with clean water	once/day	
		2	Wiping with cleanroom-only detergent/solvent	once/week	
	Pass Box	1	Wet-wiping with clean water	once/day	
		2	Wiping with cleanroom-only detergent/solvent	once/week	
Facility Equipment	Air Shower	1	Dust removal by cleanroom-only vacuum cleaner	once/day	
		2	Wet-wiping with clean water	once/day	
		3	Wiping with cleanroom-only detergent/solvent	once/week	
	Ducts/Pipes	1	Dust removal by cleanroom-only vacuum cleaner	once/3 months	
		2	Wet-wiping with clean water	once/3 months	
		3	Wiping with cleanroom-only detergent/solvent	once/3 months	
	Exhaust Port	1	Dust removal by cleanroom-only vacuum cleaner	once/month	
		2	Wet-wiping with clean water	once/month	
		3	Wiping with cleanroom-only detergent/solvent	once/month	
	Lighting Fixture	1	Wet-wiping with clean water	once/3 months	
		2	Wiping with cleanroom-only detergent/solvent	once/3 months	

Reference material: Japan Air Cleaning Association JACA No.27-1992 Cleanroom cleaning guidelines.