

Water-soluble Additive

StayClean-A

Prevents particle adhesion during dicing

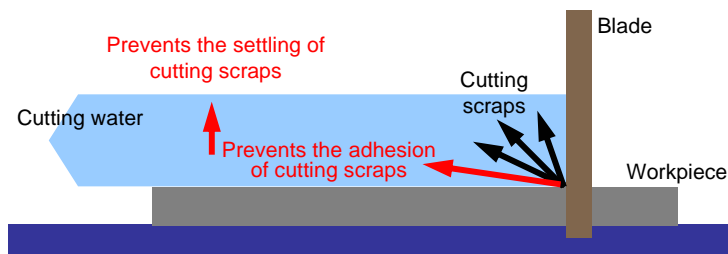
Cutting water additive to prevent particle adhesion

Particle adhesion is a frequently encountered issue in workpieces with higher water repellency than silicon wafers, such as image sensors with a resin film attached. StayClean-A prevents the workpiece from drying out, and substantially lowers the adhesion of particles by impairing their settling speed.

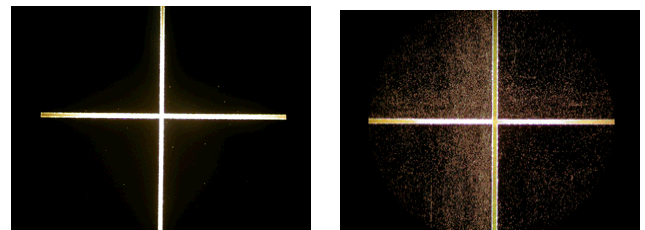
Low environmental burden

StayClean-A does not include any regulated chemicals, such as substances covered under the RoHS directive or PFOS. Furthermore, StayClean-A can be used in the same environment* as normal dicing.

*If your cutting water is being circulated, please contact your DISCO sales representative.

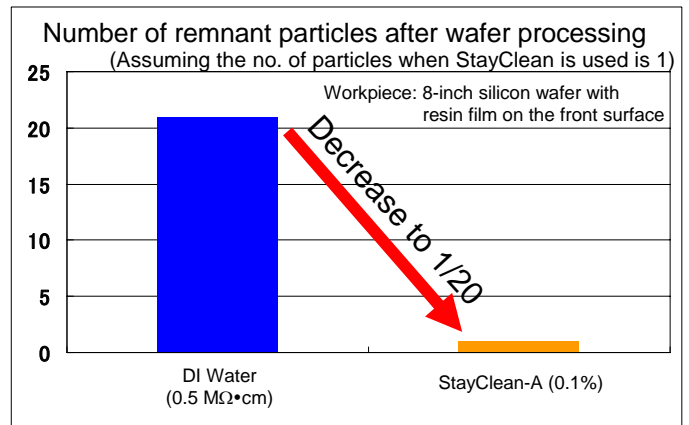


Effect of particle adhesion prevention



Mechanism

StayClean-A lowers the settling speed of the contamination and prevents adhesion by creating rising air bubbles in the cutting water.



*Nozzle + side flow nozzle + chuck table water curtain

StayClean Injector

By using the injector developed exclusively for StayClean, stable supply is possible even at concentrations more dilute than one part per thousand.



StayClean-A, StayClean Injector Specification		
	StayClean-A	StayClean Injector
Solution appearance	-	Transparent colorless liquid
Main ingredient	-	Nonionic surfactant + water soluble polymer macromolecule
pH (undiluted)	pH	7.5 - 9.5
Density (15 degrees C)	g/cm ³	1.0 - 1.02
Residue/decomposition (when diluted 1000 times)	mg/L	COD 56 (JIS K0102-17) BOD 62 (JIS K0102-21)
Recommended dilution	times	1,000 - 2,000 (0.1 - 0.05%)
Power supply, voltage	V	AC90 - 230 Single phase 50/60 Hz
Supply water temperature	deg C	20 - 25
Supply water pressure	Mpa	0.2 - 0.5
Process flow rate	L/min	2 - 20
Additive injection rate	%	0.1 - 0.01 (1,000 - 100 ppm)
Machine dimensions (WxDxH)	mm	Injector 200 x 300 x 500 excluding projections Bottle stocker 357 x 392 x 440 excluding
Machine weight	kg	Injector Approximately 22 (When dry) Bottle stocker Approximately 10 (When dry)

■ Cautions before using StayClean-A

- Make sure to read the MSDS before using StayClean-A because it describes detailed care regarding its use.
- Do not use StayClean-A for any unintended use.

■ Cautions regarding the use of StayClean-A

- Take care that it does not touch your eyes or skin, wear appropriate protective equipment such as gloves and glasses when handling it.
- Avoid using it in conjunction with other chemical agents (in particular strong acids or strong alkalines).

■ Cautions regarding StayClean-A storage

- Avoid exposure to direct sunlight and store in a cool dark place. Do not place it in a freezer.
- Seal the container properly before storing it.
- With the container still sealed, the warranty period is one year from the date of manufacture.