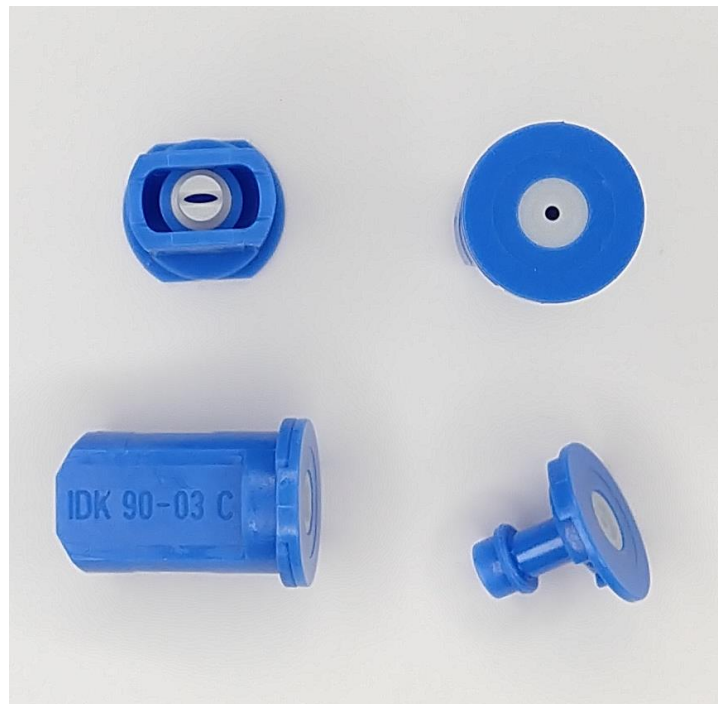




# TEST REPORT

of the  
**Julius Kühn-Institut**  
Federal Research Institute  
for Cultivated Plants, Braunschweig



**Injector - Flatfan nozzle Lechler IDK 90-03 C  
(ceramics, plastic-coated, blue)**

**Approved for spraying field crops  
with 250 mm nozzle spacing**

**Applicant and Manufacturer**  
Lechler GmbH  
Präzisionsdüsen - Tropfenabscheider  
Ulmer Strasse 128  
72555 Metzingen

**Approved on  
21. January 2022**

## Assessment

The injector flatfan nozzle Lechler IDK 90-03 C (ceramics, plastic-coated, blue) was tested without accessories. The nozzle is suitable for spraying field crops, provided that the following technical requirements are fulfilled:

1. Installation in a spray boom with a sufficient and a steady amount of liquid flow,
2. 250 mm nozzle spacing,
3. 40 cm between nozzles and spray target (consistency of evenness of cross distribution proved satisfactory at a distance range from 30 cm to 50 cm),
4. Spray pressure – measured in front of the nozzle – between 1.5 and 8.0 bar; liquid volume flow per nozzle as stated in table below.

Suitable precautions should be taken to assure that the nozzles do not get blocked up or drip when in use. The nozzles have a key width of 8 mm. The colour coding of the nozzle comply with standard ISO 10625.

Pressure (bar)	Liquid flow volume without accessories (l/min)	Max. deviation of single nozzle flow from the dosage tables	Evenness of cross distribution at (cm) 30 / 40 / 50 (Vk %)	Droplet spectrum (BCPC-Standard)
1.5	0.82	-4.99 %	4.8 / 7.3 / 3.3	very coarse
2.0	0.94	-	- / - / -	very coarse
3.0	1.16	-4.71 %	- / 4.7 / -	very coarse
4.0	1.34	-	3.1 / 4.9 / 2.4	very coarse
5.0	1.49	-4.43 %	- / 3.8 / -	coarse
6.0	1.64	-	- / 3.0 / -	medium
8.0	1.89	-2.61 %	- / 2.1 / -	medium

## Field test

The nozzles were used in the year 2021 on a total of 1700 hectares, a sufficient effect of the plant protective measures was confirmed.

## Basics for testing

The tests were carried out on basis of the Regulations for Testing Plant Protection Equipment (JKI-Guideline 2-1.1:2013) and of ISO 5682-1:1999. The requirements of ISO 16119-2:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

### Field testing:

Bayrische Landesanstalt für Landwirtschaft (LfL)  
Institut für Pflanzenschutz  
Lange Point 10  
85354 Freising

### Technical testing:

Institut für Anwendungstechnik im  
Pflanzenschutz des  
Julius Kühn-Instituts  
Messeweg 11-12,  
38104 Braunschweig

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