Responsibility and recognition

Performing competent authority:
Industrial Institute of Agricultural Engineering
ul. Starołęcka 31
60-963 POZNAŃ (Poland)

This test is recognized by the ENTAM members:

BLT F J lfz	**FJ-BLT HBLFA** Francisco Josephinum Wieselburg – Biomass, Logistics, Technology (Austria)	007/15
irstea	**IRSTEA** – Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture (formerly Cemagref) (France)	IRSTEA/ CEMAGREF/ ENTAM/15/001
JKI Julius Kühn-Institut	**JKI** - Julius Kühn-Institut (formerly BBA) (Germany)	ENT-PL-01/15
GÖDÖLLŐ 1869	**MGI -** Mezogazdasági Gépesítési Intézet (Hungary)	PL-101/2015
ENAMA	**ENAMA** Ente Nazionale per la Meccanizzazione Agricola (Italy)	No. ENTAM "Rapporto di prova prestazionale": 07/2015
Generalitat de Catalunya Departament d'Agricultura, Alimentació i Acció Rural	**CMA** Administració de la Generalitat de Catalunya, Centre de Mecanització Agrària (Spain)	EB007/15

Industrial Institute of Agricultural Engineering

European Network for Testing of Agricultural Machinery

ENTAM – Test Report

Trade mark:	Agroplast
Model:	6MS 02C
Equipment type:	Air injection hydraulic nozzle, flat spray
Field of application:	Field crop spraying
Pressure range:	2 – 6 bar tested
Standard working height:	50 cm (40, 60 cm tested)

Manufacturer:
Agroplast
ul. Lubelska 24
22-107 Sawin
Poland

Test report:
6/2015/BO/Rd-2/N

January 2015

Test results

This nozzle has been tested without accessories.
This nozzle is appropriate for the use of spraying field crops, grassland, vegetables and ornamental plants with a liquid pressure of 2.0 - 6.0 bar.

The front page image of this report shows the demountable nozzle parts (left side) and the assembled nozzle in a 90° twisted position (right side).

- The cross distribution CV[1)] is between 4.2% (2 bar) and 7.0% (3 bar) for the tested pressure range 2.0 - 6.0 bar at a standard working height of 50 cm. For a pressure of 3.0 bar, the CV varies from 4.2% (40 cm) to 7.0% (50 cm). The maximum allowed CV for one working height and one pressure (specified by the manufacturer) is 7%, for all heights and pressures is 9%.

- The deviation between the measured single nozzle flow rate and the flow rate table is between -3.6% (at 2 bar) and -4.5% (at 6.0 bar). The maximum allowed deviation is 5%.

- The max. deviation of the single nozzle flow rates from the mean flow rate is between 1.8% and 4.2%.

- A spray angle between 108° (at 2 bar) and 121° (at 6 bar) was determined.

- The nozzle fulfils the discharge rate requirement of the colour code according ISO 10625 (colour code: Zinc yellow, 0.8 l/min at 3 bar). See tab.1.

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Test results

Pressure [bar]	Discharge rate without accessories [l/min]	Droplet size[2)]
2.0	0.64	Ultra Coarse UC
3.0	0.78	Extremely coarse XC
5.0	1.00	Very coarse VC
6.0	1.09	Very coarse VC

Tab.1: Discharge rate and droplet size depending on liquid pressure.

1) on a spray boom with 50 cm nozzle distance
2) according ANSI/ASAE S572.1. 2009 scheme (additional information)

Additional information

The tested nozzles (24) were picked out at random of a stock of 200 nozzles.
Testing takes place according to the Technical Instructions for ENTAM-Tests of Spray nozzles, rel.1.
This procedure was developed by the competent testing authorities of the European countries participating in ENTAM and is based on the ISO 5682 standard: „Equipment for crop protection – Spraying equipment; Part 1: Test methods for sprayer nozzles" and on EN ISO 16119 standard: „Agricultural and forestry machinery – Environmental requirements for sprayers; Part 2: Horizontal boom sprayers". This test is only a technical performance test which takes place without an accompanying field test. The test results apply only to the tested appurtenances of the sprayer. Statements on the behaviour of different appurtenances cannot be derived from these results.