

## Jałowy test (CDA)

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- Gravity **13.4 BLG**
- ABV ---
- IBU **50**
- SRM **33.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **3 %**
- Size with trub loss **12.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **5.5 liter(s)**
- Total mash volume **7.9 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **5.5 liter(s)** of strike water to **77.3C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Melanoiden Malt	0.15 kg (5.8%)	80 %	39
Grain	Strzegom Pilzneński	2 kg (76.9%)	80 %	4
Grain	Strzegom Karmel 300	0.1 kg (3.8%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.15 kg (5.8%)	68 %	1200
Sugar	Brown Sugar, Light	0.15 kg (7.7%)	100 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	11 %
Boil	Magnum	5 g	20 min	11 %
Whirlpool	Citra	10 g	0 min	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
gestwa	Ale	Slant	1 ml	---

### Extras

Type	Name	Amount	Use for	Time
Spice	skórka pomarańczy	40 g	Boil	10 min
Spice	owoce jałowca	15 g	Boil	0 min

## Notes

- słód ciemny ekstrahowany w wodzie o temp. pokojowej, dodawany w momencie podnoszenia temp. do wygrzewu.  
*Mar 14, 2016, 7:39 AM*