

## #starter

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **190**
- SRM **8.4**
- Style **Weizen/Weissbier**

### Batch size

- Expected quantity of finished beer **1.4 liter(s)**
- Trub loss **1 %**
- Size with trub loss **1.4 liter(s)**
- Boil time **1 min**
- Evaporation rate **1 %/h**
- Boil size **1.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **1.1 liter(s)**
- Total mash volume **1.4 liter(s)**

### Steps

- Temp **46 C**, Time **12 min**
- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **1.1 liter(s)** of strike water to **49.1C**
- Add grains
- Keep mash **12 min** at **46C**
- Keep mash **25 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **0.6 liter(s)** of **76C** water or to achieve **1.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	WES ekstrakt słodowy jasny	0.26 kg (100%)	80 %	20

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Aroma (end of boil)	Oktawia	15 g	5 min	7.1 %