

## O czym szumią wierzby

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **33**
- SRM **7.9**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **22.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.7 liter(s)**
- Total mash volume **16.9 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński	3.8 kg (89.8%)	79 %	4
Grain	Słód karmelowy 50 (czerwony)	0.35 kg (8.3%)	74 %	50
Grain	Słód czekoladowy jasny	0.08 kg (1.9%)	68 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	40 g	60 min	4.2 %
Boil	Fuggles	15 g	15 min	4.2 %
Boil	East Kent Golding	15 g	15 min	4.6 %
Aroma (end of boil)	Cascade	20 g	2 min	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP005 - British Ale Yeast	Ale	Liquid	1000 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
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Fining	Mech irlandzki	4 g	Boil	10 min
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