

## Guinness podwórkowy v.2

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **37**
- SRM **34.6**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **57 C**, Time **30 min**
- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **15 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **63.2C**
- Add grains
- Keep mash **30 min** at **57C**
- Keep mash **90 min** at **67C**
- Keep mash **15 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (71.4%)	80 %	5
Grain	Płatki jęczmienne	1 kg (17.9%)	85 %	3.9
Grain	Jęczmień palony	0.6 kg (10.7%)	55 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	35 g	60 min	5.1 %
Boil	Challenger	30 g	60 min	6.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Espe	Ale	Dry	5 g	---