

## #24 Pine Irish Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **18**
- SRM **34**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **0 %**
- Size with trub loss **25 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.9 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	3 kg (57.1%)	75 %	6
Grain	Barley, Flaked	1 kg (19%)	77 %	4
Grain	Pale Chocolate	0.25 kg (4.8%)	70 %	450
Grain	Black Barley (Roast Barley)	0.5 kg (9.5%)	55 %	1300
Grain	Monachijski	0.5 kg (9.5%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	30 g	60 min	4.5 %
Boil	Fuggles	20 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	300 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	15 min
Flavor	Pędy sosny	600 g	Secondary	10 day(s)