

## #24 Pine Irish Stout

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- 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) |