

#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) |