

gónwo, normalnie gónwo

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **54**
- SRM **30**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **75C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|---------------|-------|------|
| Grain | Pale Ale malt | 4 kg (72.7%) | 80 % | 3 |
| Grain | Munich Malt | 1 kg (18.2%) | 80 % | 20 |
| Grain | Roasted Barley | 0.3 kg (5.5%) | 55 % | 1300 |
| Grain | Chocolate Malt (UK) | 0.2 kg (3.6%) | 73 % | 1067 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Northern Brewer | 60 g | 60 min | 9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------------|------|------|--------|-----------------|
| Mangrove Jack's -M15 Empire Ale | Ale | Dry | 10 g | Mangrove Jack's |