

dry stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **42**
- SRM **27.4**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **70 C**, Time **70 min**
- Temp **70 C**, Time **10 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **10 min** at **70C**
- Keep mash **70 min** at **70C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|------------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 4.4 kg (77.9%) | 80 % | 7 |
| Grain | Briess - Dark Chocolate Malt | 0.25 kg (4.4%) | 75 % | 827 |
| Grain | Jęczmień palony | 0.4 kg (7.1%) | 65 % | 985 |
| Adjunct | Płatki owsiane | 0.6 kg (10.6%) | 70 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Target | 45 g | 60 min | 10.5 % |

Yeasts

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