

- Gravity **12.4 BLG**
- ABV ---
- IBU **27**
- SRM **39.6**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **12.3 %/h**
- Boil size **27 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---|---------------|--------|------|
| Grain | Malting company of Ireland - Irish Ale Malt | 4 kg (74.1%) | 80.5 % | 7 |
| Grain | Black Barley (Roast Barley) crushed | 0.5 kg (9.3%) | 50 % | 1300 |
| Grain | Bestmalz - Cara Munich Type III | 0.3 kg (5.6%) | 75 % | 160 |
| Grain | Crisp - Wheat Malt (EBC 2.5-4.5) | 0.4 kg (7.4%) | 85 % | 4 |
| Grain | Weyermann - chocolate malt | 0.2 kg (3.7%) | 50 % | 900 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Marynka | 15 g | 40 min | 8.6 % |
| Boil | Tradition | 30 g | 40 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|-------|---------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 1000 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------|--------|---------|-------|
| Fining | Whirlfloc | 3 g | Boil | 5 min |