

## #15 Dry Stout

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **29**
- SRM **39.1**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

### Steps

- Temp **64 C**, Time **80 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **80 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount          | Yield | EBC  |
|-------|-----------------------------|-----------------|-------|------|
| Grain | Viking Pale Ale malt        | 3 kg (52.2%)    | 80 %  | 5    |
| Grain | Strzegom Monachijski typ II | 1.25 kg (21.7%) | 79 %  | 22   |
| Grain | Pszeniczny                  | 0.5 kg (8.7%)   | 85 %  | 4    |
| Grain | Strzegom Karmel 600         | 0.3 kg (5.2%)   | 68 %  | 601  |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (5.2%)   | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.4 kg (7%)     | 55 %  | 985  |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Fuggles | 50 g   | 60 min | 5.9 %      |

### Yeasts

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