

## #19 Smoked dry stout

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **40**
- SRM **42**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **8.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt             | 1.8 kg (62.1%) | 80 %  | 5    |
| Grain | Słód Wędzony Steinbach           | 0.6 kg (20.7%) | 80 %  | 5    |
| Grain | Jęczmień palony                  | 0.25 kg (8.6%) | 55 %  | 985  |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.1 kg (3.4%)  | 73 %  | 1001 |
| Grain | Extra black                      | 0.15 kg (5.2%) | 65 %  | 1400 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 40 g   | 60 min | 5.1 %      |

### Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 100 ml | Fermentum Mobile |

### Extras

| Type   | Name     | Amount | Use for | Time   |
|--------|----------|--------|---------|--------|
| Fining | whirfloc | 0.5 g  | Boil    | 15 min |