

## #13 Dry Stout

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **16**
- SRM **45.5**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **5 %/h**
- Boil size **23.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **24.1 liter(s)**

### Steps

- Temp **67 C**, Time **80 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt   | 3.2 kg (59.7%) | 85 %  | 7    |
| Grain | płatki jęczmienne           | 0.5 kg (9.3%)  | 60 %  | 4    |
| Grain | Strzegom Czekoladowy 400    | 0.4 kg (7.5%)  | 68 %  | 400  |
| Grain | Weyermann - Chocolate Wheat | 0.5 kg (9.3%)  | 74 %  | 900  |
| Grain | Jęczmień palony             | 0.3 kg (5.6%)  | 55 %  | 1000 |
| Grain | Płatki pszeniczne           | 0.36 kg (6.7%) | 60 %  | 3    |
| Grain | Carafa II                   | 0.1 kg (1.9%)  | 70 %  | 812  |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Willamette | 30 g   | 60 min | 5 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Fermentis  |