

#13 Dry Stout

- 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 |