

## Stout studies #3

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **38.3**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

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

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

### Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt           | 4 kg (71.4%)   | 80 %  | 5    |
| Grain | Strzegom Wiedeński             | 0.4 kg (7.1%)  | 79 %  | 10   |
| Grain | Brown Malt (British Chocolate) | 0.3 kg (5.4%)  | 70 %  | 128  |
| Grain | Caraaroma                      | 0.1 kg (1.8%)  | 78 %  | 400  |
| Grain | Carafa III                     | 0.8 kg (14.3%) | 70 %  | 1034 |

### Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | Chinook            | 40 g   | 60 min | 7.6 %      |
| Aroma (end of boil) | East Kent Goldings | 30 g   | 0 min  | 5.1 %      |

### Yeasts

| Name                  | Type | Form  | Amount | Laboratory |
|-----------------------|------|-------|--------|------------|
| Danstar - Windsor Ale | Ale  | Slant | 200 ml | Danstar    |