

## Stout z dodatkami

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **18**
- SRM **57**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **48 C**, Time **15 min**
- Temp **62 C**, Time **60 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **52.7C**
- Add grains
- Keep mash **15 min** at **48C**
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount        | Yield  | EBC  |
|-------|----------------------|---------------|--------|------|
| Grain | Viking Pale Ale malt | 3.5 kg (50%)  | 80 %   | 5    |
| Grain | Słód owsiany         | 0.5 kg (7.1%) | 61 %   | 5    |
| Grain | Fawcett - Brown      | 0.5 kg (7.1%) | 72 %   | 180  |
| Grain | Castle Cafe          | 0.5 kg (7.1%) | 75.5 % | 250  |
| Grain | Carafa II            | 0.5 kg (7.1%) | 70 %   | 1100 |
| Grain | Fawcett - Chocolate  | 0.5 kg (7.1%) | 71 %   | 1100 |
| Grain | Special B Malt       | 0.5 kg (7.1%) | 65.2 % | 260  |
| Grain | Carahell             | 0.5 kg (7.1%) | 77 %   | 26   |

### Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Amora Preta | 10 g   | 50 min | 11.2 %     |
| Boil    | Amora Preta | 10 g   | 30 min | 11.2 %     |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|              |     |     |        |           |
|--------------|-----|-----|--------|-----------|
| Safbrew S-33 | Ale | Dry | 11.5 g | Fermentis |
|--------------|-----|-----|--------|-----------|

## Notes

- Różne dodatki najpewniej już do butelek dodam.  
*Mar 2, 2023, 10:27 PM*