

## stout bazowy

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- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **35**
- SRM **38**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **70 C**, Time **30 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **70C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

### Fermentables

| Type  | Name                                    | Amount         | Yield | EBC  |
|-------|---|----------------|-------|------|
| Grain | Viking Pale Ale malt                    | 1.6 kg (35.6%) | 80 %  | 5    |
| Grain | Strzegom Pilzneński                     | 1 kg (22.2%)   | 80 %  | 4    |
| Grain | Viking Vienna Malt                      | 1 kg (22.2%)   | 79 %  | 7    |
| Grain | Fawcett -<br>Pszenciczny<br>Czekoladowy | 0.2 kg (4.4%)  | 73 %  | 1001 |
| Grain | Weyermann -<br>Carafa III               | 0.2 kg (4.4%)  | 70 %  | 1024 |
| Grain | Wheat, Torrified                        | 0.2 kg (4.4%)  | 79 %  | 4    |
| Grain | Carafa III                              | 0.3 kg (6.7%)  | 70 %  | 1034 |

### Hops

| Use for | Name                     | Amount | Time   | Alpha acid |
|---------|--------------------------|--------|--------|------------|
| Boil    | Magnum                   | 15 g   | 60 min | 11.5 %     |
| Boil    | Saaz (Czech<br>Republic) | 20 g   | 30 min | 4.5 %      |
| Boil    | Styrian Golding          | 20 g   | 10 min | 3.6 %      |

### Yeasts

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

|                              |     |        |        |                  |
|------------------------------|-----|--------|--------|------------------|
| FM13 Irlandzkie<br>Ciemności | Ale | Liquid | 100 ml | Fermentum Mobile |
|------------------------------|-----|--------|--------|------------------|

## Notes

- start drożdży do RISA  
*Mar 21, 2018, 10:15 AM*