

## Stout czekoladowy

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **51**
- SRM **28.5**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.75 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **29.3 liter(s)**

### Steps

- Temp **66 C**, Time **75 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21.5 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.6 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        | 5 kg (64.1%)  | 80 %  | 5    |
| Grain | Strzegom Monachijski typ I  | 2 kg (25.6%)  | 79 %  | 16   |
| Grain | Karmelowy Jasny 30EBC       | 0.2 kg (2.6%) | 75 %  | 30   |
| Grain | Strzegom Karmel 150         | 0.2 kg (2.6%) | 75 %  | 150  |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (2.6%) | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.2 kg (2.6%) | 55 %  | 985  |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 50 g   | 60 min | 9.1 %      |
| Boil    | Lublin (Lubelski) | 25 g   | 15 min | 4.5 %      |

### Yeasts

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

|                            |     |       |        |         |
|----------------------------|-----|-------|--------|---------|
| Gozdawa - Pure Ale Yeast 7 | Ale | Slant | 100 ml | Gozdawa |
|----------------------------|-----|-------|--------|---------|

### Extras

| Type   | Name           | Amount | Use for   | Time     |
|--------|----------------|--------|-----------|----------|
| Flavor | Łuska kakaowca | 150 g  | Secondary | 5 day(s) |
| Flavor | Łuska kakaowca | 50 g   | Boil      | 10 min   |