

# czekoladowe

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **31**
- SRM **15.1**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.3 liter(s)**
- Total mash volume **35 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **26.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 5 kg (57.1%)   | 80 %  | 5   |
| Grain | Rahr - Red Wheat Malt      | 1.5 kg (17.1%) | 85 %  | 89  |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (2.9%) | 68 %  | 400 |
| Grain | Strzegom Wiedeński         | 2 kg (22.9%)   | 79 %  | 10  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Marynka | 20 g   | 60 min | 6.8 %      |
| Aroma (end of boil) | Marynka | 50 g   | 20 min | 6.8 %      |
| Aroma (end of boil) | Marynka | 30 g   | 15 min | 6.8 %      |