

# Krzywa czekoladka

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **45**
- SRM **53.9**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC  |
|-------|----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale Malt       | 2.8 kg (59.6%) | 80 %  | 15   |
| Grain | Viking Munich Malt Dark    | 1 kg (21.3%)   | 78 %  | 57   |
| Grain | Oats, Flaked               | 0.5 kg (10.6%) | 80 %  | 4    |
| Grain | Viking Chocolate Dark Malt | 0.25 kg (5.3%) | 71 %  | 2400 |
| Grain | Carafa II                  | 0.15 kg (3.2%) | 70 %  | 2164 |

## Hops

| Use for | Name             | Amount | Time   | Alpha acid |
|---------|------------------|--------|--------|------------|
| Boil    | Marynka          | 17 g   | 30 min | 11.5 %     |
| Boil    | Mosaic (HBC 369) | 30 g   | 15 min | 12.25 %    |
| Boil    | Galaxy           | 30 g   | 0 min  | 14 %       |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-33 | Ale  | Dry  | 11 g   | Fermentis  |