

# Draj

- Gravity **10 BLG**
- ABV **4 %**
- IBU **33**
- SRM **28.3**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **24 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **18.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **14.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pale Malt (2 Row) UK | 3 kg (74.1%)   | 78 %  | 6   |
| Grain | Płatki owsiane       | 0.5 kg (12.3%) | 85 %  | 3   |
| Grain | Czekoladowy          | 0.25 kg (6.2%) | 60 %  | 788 |
| Grain | Jęczmień palony      | 0.3 kg (7.4%)  | 55 %  | 985 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 25 g   | 60 min | 10 %       |
| Boil    | Sybilla | 25 g   | 5 min  | 3.5 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |