

# Klon ksiazecze Ciemne lagodne

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **24**
- SRM **31.7**
- Style **Schwarzbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **30 min** at **72C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Monachijski typ II | 2 kg (33.3%)  | 79 %  | 22   |
| Grain | Pilzneński                  | 3 kg (50%)    | 81 %  | 4    |
| Grain | Strzegom Karmel 300         | 0.5 kg (8.3%) | 70 %  | 299  |
| Grain | Strzegom Czekoladowy 1200   | 0.4 kg (6.7%) | 68 %  | 1202 |
| Grain | Jęczmień palony             | 0.1 kg (1.7%) | 55 %  | 985  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 25 g   | 60 min | 10 %       |
| Boil    | Marynka | 15 g   | 5 min  | 10 %       |

## Yeasts

| Name             | Type  | Form  | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 500 ml | Fermentis  |