

# Lager#1

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **35**
- SRM **9.5**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **38.3 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **20 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **73C**
- Sparge using **23.7 liter(s)** of **76C** water or to achieve **38.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński         | 5 kg (68.5%)  | 80 %  | 4   |
| Grain | Strzegom Karmel 300         | 0.3 kg (4.1%) | 70 %  | 299 |
| Grain | Strzegom Monachijski typ II | 1 kg (13.7%)  | 79 %  | 22  |
| Grain | Viking Pale Ale malt        | 1 kg (13.7%)  | 80 %  | 5   |

## Hops

| Use for             | Name                  | Amount | Time   | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil                | Saaz (Czech Republic) | 40 g   | 90 min | 4.5 %      |
| Boil                | Marynka               | 20 g   | 40 min | 10 %       |
| Aroma (end of boil) | Saaz (Czech Republic) | 60 g   | 5 min  | 4.5 %      |

## Yeasts

| Name          | Type  | Form | Amount | Laboratory                         |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry  | 11.5 g | Fermentis Division of S.I.Lesaffre |