

# Hefe

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **15**
- SRM **3.6**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **54.2 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **37.8 liter(s)**

## Steps

- Temp **45 C**, Time **10 min**
- Temp **50 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

## Mash step by step

- Heat up **29.4 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **73C**
- Sparge using **33.2 liter(s)** of **76C** water or to achieve **54.2 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Carahell            | 0.4 kg (4.8%) | 77 %  | 26  |
| Grain | Strzegom Pilzneński | 4 kg (47.6%)  | 80 %  | 4   |
| Grain | Pszeniczny          | 4 kg (47.6%)  | 85 %  | 4   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Lublin (Lubelski) | 35 g   | 60 min | 5.4 %      |
| Boil                | Lublin (Lubelski) | 30 g   | 10 min | 5.4 %      |
| Aroma (end of boil) | Lublin (Lubelski) | 20 g   | 5 min  | 5.4 %      |

## Yeasts

| Name                   | Type | Form   | Amount | Laboratory       |
|------------------------|------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Ale  | Liquid | 300 ml | Fermentum Mobile |