

## Pils na lubelskim

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **4.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **31.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **30.3 liter(s)**
- Total mash volume **35.8 liter(s)**

### Steps

- Temp **63 C**, Time **120 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **30.3 liter(s)** of strike water to **66.9C**
- Add grains
- Keep mash **120 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pilzneński          | 4.2 kg (76.4%) | 81 %  | 4   |
| Grain | Malteurop Wiedeński | 1 kg (18.2%)   | 79 %  | 8   |
| Grain | Viking Dekstrynowy  | 0.3 kg (5.5%)  | 79 %  | 13  |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| First Wort          | Magnum            | 15 g   | 90 min | 12 %       |
| Boil                | Lublin (Lubelski) | 35 g   | 30 min | 4 %        |
| Boil                | Lublin (Lubelski) | 35 g   | 15 min | 4 %        |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g   | 5 min  | 4 %        |

### Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 22 g   | ---        |

### Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |           |     |      |        |
|--------|-----------|-----|------|--------|
| Fining | whirlfloc | 3 g | Boil | 15 min |
|--------|-----------|-----|------|--------|