

# Rye Pils

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **39**
- SRM **3.8**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **18 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **17 liter(s)**

## Steps

- Temp **66 C**, Time **90 min**

## Mash step by step

- Heat up **13.6 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **18 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3 kg (88.2%)   | 82 %  | 4   |
| Grain | Płatki żytnie       | 0.4 kg (11.8%) | 60 %  | 4   |

## Hops

| Use for   | Name                 | Amount | Time   | Alpha acid |
|-----------|----------------------|--------|--------|------------|
| Boil      | lunga                | 15 g   | 60 min | 11.5 %     |
| Boil      | Hallertau Mittelfruh | 20 g   | 15 min | 3.1 %      |
| Whirlpool | Hallertau Mittelfruh | 20 g   | 30 min | 3 %        |