

# Grodziskie

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- Gravity **6.4 BLG**
- ABV ---
- IBU **11**
- SRM **3.2**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **10 %**
- Size with trub loss **44 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **53.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **38 C**, Time **45 min**
- Temp **63 C**, Time **21 min**
- Temp **72 C**, Time **22 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **45 min** at **38C**
- Keep mash **21 min** at **63C**
- Keep mash **22 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **44.9 liter(s)** of **76C** water or to achieve **53.9 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Weyermann pszeniczny jasny | 4 kg (88.9%)   | 80 %  | 6   |
| Grain | Orkiszowy                  | 0.5 kg (11.1%) | 82 %  | 4.5 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Amarillo | 5 g    | 60 min | 9.5 %      |
| Boil    | Cascade  | 15 g   | 45 min | 6 %        |
| Boil    | Citra    | 10 g   | 5 min  | 12 %       |

## Yeasts

| Name            | Type | Form   | Amount | Laboratory  |
|-----------------|------|--------|--------|-------------|
| Wyeast - Kolsch | Ale  | Liquid | 125 ml | Wyeast Labs |