

# Kisiel

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **15**
- SRM **13.6**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **10.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **7.4 liter(s)**
- Total mash volume **9.4 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **7.4 liter(s)** of strike water to **67.7C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **4.7 liter(s)** of **76C** water or to achieve **10.1 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount       | Yield  | EBC |
|-------|---------------------|--------------|--------|-----|
| Grain | Żytni               | 1 kg (50%)   | 85 %   | 8   |
| Grain | Monachijski         | 0.9 kg (45%) | 80 %   | 16  |
| Grain | Strzegom Karmel 600 | 0.06 kg (3%) | 68 %   | 601 |
| Grain | Special B Malt      | 0.04 kg (2%) | 65.2 % | 315 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Marynka               | 5 g    | 60 min | 8.5 %      |
| Boil    | Saaz (Czech Republic) | 5 g    | 10 min | 3.5 %      |
| Boil    | Saaz (Czech Republic) | 5 g    | 5 min  | 3.5 %      |