

# Kozioł

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **26**
- SRM **13.4**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.1 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **55.6C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount        | Yield | EBC |
|-------|---------------------------|---------------|-------|-----|
| Grain | Strzegom Wiedeński        | 6 kg (78.9%)  | 79 %  | 10  |
| Grain | Pilzneński                | 0.5 kg (6.6%) | 81 %  | 4   |
| Grain | Special B Castle          | 0.3 kg (3.9%) | 70 %  | 400 |
| Grain | Aromatic Malt<br>BESTMALZ | 0.3 kg (3.9%) | 78 %  | 50  |
| Grain | Monachijski               | 0.5 kg (6.6%) | 80 %  | 16  |

## Hops

| Use for             | Name                      | Amount | Time   | Alpha acid |
|---------------------|---------------------------|--------|--------|------------|
| Boil                | Magnum                    | 30 g   | 45 min | 12 %       |
| Aroma (end of boil) | Hallertauer<br>Mittelfrüh | 30 g   | 0 min  | 3 %        |

## Yeasts

| Name  | Type  | Form  | Amount | Laboratory |
|-------|-------|-------|--------|------------|
| 34/70 | Lager | Slant | 500 ml | ---        |