

# Koźlak Wędzony

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **23**
- SRM **20**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **13 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

## Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **24.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

| Type  | Name                                   | Amount         | Yield  | EBC  |
|-------|--|----------------|--------|------|
| Grain | Weyermann - Smoked Malt                | 3.8 kg (54.3%) | 81 %   | 6    |
| Grain | BESTMALZ - Best Minich                 | 2 kg (28.6%)   | 80.5 % | 16   |
| Grain | Monachijski typ II 20-25 EBC Weyermann | 0.4 kg (5.7%)  | 80 %   | 20   |
| Grain | Caramunich® typ I                      | 0.5 kg (7.1%)  | 73 %   | 80   |
| Grain | Strzegom Karmel 300                    | 0.2 kg (2.9%)  | 70 %   | 299  |
| Grain | Weyermann - Carafa III Special         | 0.1 kg (1.4%)  | 5 %    | 1300 |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 23 g   | 60 min | 10.3 %     |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                                  |       |        |       |            |
|----------------------------------|-------|--------|-------|------------|
| WLP833 - German Bock Lager Yeast | Lager | Liquid | 40 ml | White Labs |
|----------------------------------|-------|--------|-------|------------|