

# Jasne wędzone

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **22**
- SRM **4.3**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **30.6 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **25.5 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount        | Yield  | EBC |
|-------|------------------------------|---------------|--------|-----|
| Grain | Weyermann - Smoked Malt      | 2 kg (39.2%)  | 81 %   | 6   |
| Grain | Briess - Pilsen Malt         | 2 kg (39.2%)  | 80.5 % | 2   |
| Grain | Vienna Malt                  | 0.5 kg (9.8%) | 78 %   | 8   |
| Grain | Strzegom Monachijski typ I   | 0.5 kg (9.8%) | 79 %   | 16  |
| Grain | Cara Blonde - Castle Malting | 0.1 kg (2%)   | 78 %   | 20  |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 15 g   | 45 min | 15.5 %     |
| Aroma (end of boil) | Tomyski                | 25 g   | 5 min  | 2.8 %      |

## Yeasts

| Name          | Type | Form  | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| Lutra OYL-071 | Ale  | Slant | 100 ml | Omega      |