

# GrowJish

- Gravity **7.8 BLG**
- ABV ---
- IBU **27**
- SRM **3.3**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

## Steps

- Temp **65 C**, Time **35 min**
- Temp **75 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **9.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **35 min** at **65C**
- Keep mash **30 min** at **75C**
- Keep mash **2 min** at **78C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Weyermann - Grodziski      | 2 kg (61.5%)    | 80 %  | 4   |
| Grain | Viking Pale Ale malt       | 0.3 kg (9.2%)   | 80 %  | 5   |
| Grain | Weyermann pszeniczny jasny | 0.95 kg (29.2%) | 80 %  | 6   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | Lomik | 30 g   | 60 min | 3.8 %      |
| Boil    | Lomik | 25 g   | 25 min | 3.8 %      |
| Boil    | Lomik | 25 g   | 10 min | 3.8 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Safale     |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                             |       |           |          |
|--------|-----------------------------|-------|-----------|----------|
| Flavor | Syrop z kwiatu czarnego bzu | 200 g | Secondary | 6 day(s) |
|--------|-----------------------------|-------|-----------|----------|