

# Niemiecki Księżcunio

- Gravity **12.1 BLG**
- ABV ---
- IBU **28**
- SRM **9**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

## Steps

- Temp **64 C**, Time **70 min**
- Temp **74 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **15.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **70 min** at **64C**
- Keep mash **20 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Pszeniczny Heidenberg | 2.5 kg (48.5%) | 82 %  | 3   |
| Grain | Strzegom Pilzneński   | 2.5 kg (48.5%) | 80 %  | 4   |
| Grain | Strzegom Karmel 300   | 0.15 kg (2.9%) | 70 %  | 299 |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Aroma (end of boil) | Huell Melon       | 20 g   | 15 min | 7.5 %      |
| Aroma (end of boil) | Yellow Sub        | 20 g   | 15 min | 7.3 %      |
| Aroma (end of boil) | Mandarina Bavaria | 20 g   | 15 min | 10 %       |

## Yeasts

| Name   | Type  | Form | Amount | Laboratory |
|--------|-------|------|--------|------------|
| W34/70 | Lager | Dry  | 20 g   | Fermentis  |

## Extras

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

|        |                |     |      |        |
|--------|----------------|-----|------|--------|
| Fining | Mech Irlandzki | 5 g | Boil | 15 min |
|--------|----------------|-----|------|--------|