

koźlak

- Gravity **28.1 BLG**
- ABV **13.6 %**
- IBU **41**
- SRM **14.8**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **37.5 liter(s)**
- Total mash volume **52.5 liter(s)**

Steps

- Temp **50 C**, Time **30 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **37.5 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Strzegom Wiedeński | 5 kg (33.3%) | 79 % | 10 |
| Grain | Strzegom Monachijski typ II | 5 kg (33.3%) | 79 % | 22 |
| Grain | Strzegom Monachijski typ I | 5 kg (33.3%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Chinook | 30 g | 60 min | 13.9 % |
| Boil | Waimea | 30 g | 60 min | 15.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 150 ml | Fermentis |

Extras

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

| | | | | |
|--------|-----------|-------|-----------|----------|
| Flavor | bób tonka | 7.5 g | Boil | 15 min |
| Flavor | bób tonka | 7.5 g | Secondary | 7 day(s) |