

## tmavy lezak

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **22**
- SRM **26.2**
- Style **Munich Dunkel**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.3 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **67 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **20.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **70 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

### Fermentables

| Type  | Name                                | Amount         | Yield | EBC  |
|-------|-------------------------------------|----------------|-------|------|
| Grain | Strzegom Wiedeński                  | 1.7 kg (29.1%) | 79 %  | 10   |
| Grain | Strzegom Monachijski typ I          | 3 kg (51.3%)   | 79 %  | 16   |
| Grain | Strzegom Czekoladowy jasny          | 0.3 kg (5.1%)  | 68 %  | 400  |
| Grain | Caraaroma                           | 0.2 kg (3.4%)  | 78 %  | 400  |
| Grain | Weyermann - Dehusked Carafa III     | 0.25 kg (4.3%) | 70 %  | 1300 |
| Grain | Słód Pilsner® 2,5-4,5 EBC Weyermann | 0.4 kg (6.8%)  | 80 %  | 4    |

### Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Diamant               | 20 g   | 60 min | 10 %       |
| Boil    | Saaz (Czech Republic) | 30 g   | 10 min | 4.6 %      |

### Yeasts

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

|                  |       |     |      |     |
|------------------|-------|-----|------|-----|
| Saflager W 34/70 | Lager | Dry | 22 g | --- |
|------------------|-------|-----|------|-----|

### Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | whirlflock | 5 g    | Boil    | 60 min |

### Notes

- sanitarna:zywiecki kryształ 50:50  
Sep 27, 2022, 10:20 AM