

## koźlok co trzepie

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **29**
- SRM **22.2**
- Style **Doppelbock**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **15.1 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **24.7 liter(s)**

### Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **19.2 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **1.4 liter(s)** of **76C** water or to achieve **15.1 liter(s)** of wort

### Fermentables

| Type              | Name                                    | Amount          | Yield | EBC  |
|-------------------|-----------------------------------------|-----------------|-------|------|
| Grain             | Strzegom Monachijski typ I              | 1.75 kg (31.8%) | 79 %  | 16   |
| Grain             | red active viking malt                  | 0.8 kg (14.5%)  | 79 %  | 35   |
| Grain             | Weyermann - Melanoiden Malt             | 0.5 kg (9.1%)   | 81 %  | 80   |
| Grain             | Caramunich® typ I                       | 0.4 kg (7.3%)   | 73 %  | 80   |
| Grain             | Strzegom Wiedeński                      | 2 kg (36.4%)    | 79 %  | 9    |
| Grain             | weyermann Czekoladowy ciemny pszeniczny | 0.05 kg (0.9%)  | 68 %  | 1050 |
| koniec zacierania |                                         |                 |       |      |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 20 g   | 60 min | 10 %       |

### Yeasts

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

|         |       |       |        |     |
|---------|-------|-------|--------|-----|
| W-34/70 | Lager | Slant | 200 ml | --- |
|---------|-------|-------|--------|-----|

## Notes

- dekokcja jednowarowa w 72st  
*Dec 30, 2020, 9:25 PM*