

# schwarz

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **26**
- SRM **19.3**
- Style **Schwarzbier**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 2.5 kg (54.3%) | 80 %  | 5    |
| Grain | Strzegom Monachijski typ I  | 1.5 kg (32.6%) | 79 %  | 16   |
| Grain | Karmelowy żytni Strzegom    | 0.25 kg (5.4%) | 75 %  | 150  |
| Grain | Weyermann - Carapils        | 0.1 kg (2.2%)  | 78 %  | 4    |
| Grain | Carafa II                   | 0.2 kg (4.3%)  | 70 %  | 812  |
| Grain | Strzegom Czekoladowy ciemny | 0.05 kg (1.1%) | 68 %  | 1200 |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Centennial | 15 g   | 60 min | 10.5 %     |
| Boil    | Hallertau  | 15 g   | 15 min | 6 %        |
| Boil    | Centennial | 15 g   | 5 min  | 10.5 %     |
| Boil    | Hallertau  | 25 g   | 0 min  | 4.5 %      |

## Yeasts

| Name   | Type  | Form  | Amount | Laboratory |
|--------|-------|-------|--------|------------|
| w34/70 | Lager | Slant | 150 ml | fermentis  |