

# SCHWARZBIER V

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **24**
- Style **Schwarzbier**

## 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 **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **24.6 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **35 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **70C**
- Keep mash **2 min** at **78C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC  |
|-------|----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński        | 3 kg (48.8%)   | 80 %  | 4    |
| Grain | Strzegom Monachijski typ I | 2.5 kg (40.7%) | 79 %  | 16   |
| Grain | Strzegom Karmel 30         | 0.25 kg (4.1%) | 75 %  | 30   |
| Grain | Strzegom Czekoladowy 1200  | 0.3 kg (4.9%)  | 68 %  | 1202 |
| Grain | Jęczmień palony            | 0.1 kg (1.6%)  | 55 %  | 1000 |

## Hops

| Use for             | Name                | Amount | Time   | Alpha acid |
|---------------------|---------------------|--------|--------|------------|
| Boil                | Hallertau Tradition | 35 g   | 50 min | 6.3 %      |
| Boil                | Hallertau Tradition | 20 g   | 10 min | 5 %        |
| Aroma (end of boil) | Hallertau Tradition | 15 g   | 1 min  | 5 %        |

## Yeasts

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

|                                       |       |       |        |     |
|---------------------------------------|-------|-------|--------|-----|
| Mangrove Jack's<br>M76 Bavarian Lager | Lager | Slant | 420 ml | --- |
|---------------------------------------|-------|-------|--------|-----|

### Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | whirlflock | 1.25 g | Boil    | 10 min |

### Notes

- jęczmień palony na koniec zacierania  
czekoladowy 1200 dodany do filtracji  
*Jul 16, 2022, 9:30 AM*