

# Doppelbock

- Gravity **21.8 BLG**
- ABV **9.8 %**
- IBU **27**
- SRM **19.7**
- Style **Doppelbock**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.6 liter(s)**
- Total mash volume **36.8 liter(s)**

## Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **50 min**

## Mash step by step

- Heat up **27.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **50 min** at **72C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3.5 kg (38%)	79 %	16
Grain	Strzegom Wiedeński	2.5 kg (27.2%)	79 %	10
Grain	Viking melanoidynowy	2 kg (21.7%)	75 %	60
Grain	Strzegom Monachijski typ II	1 kg (10.9%)	79 %	22
Grain	Strzegom Czekoladowy jasny	0.2 kg (2.2%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Spalt	40 g	60 min	5.5 %
Boil	Spalt	30 g	30 min	5.5 %
Aroma (end of boil)	Spalt	30 g	0 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	300 ml	Fermentum Mobile