

Dunkel

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **13**
- SRM **15.4**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2 kg (37.7%)	79 %	16
Grain	Strzegom Pszeniczny	3 kg (56.6%)	81 %	4.2
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.8%)	68 %	800
Grain	Fawcett - Brown	0.1 kg (1.9%)	72 %	180

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	25 g	60 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	800 ml	Fermentum Mobile