

Dunkel

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **16**
- SRM **19.5**
- Style **Munich Dunkel**

Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **62 C**, Time **50 min**
- Temp **70 C**, Time **20 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **20 min** at **70C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2 kg (39.6%)	79 %	22
Grain	Pszeniczny	2.5 kg (49.5%)	85 %	4
Grain	Cara wheat	0.35 kg (6.9%)	70 %	812
Grain	Strzegom Karmel 300	0.2 kg (4%)	70 %	299

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nadwiślański	25 g	65 min	5.9 %
Aroma (end of boil)	Hallertau	25 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
munich wheat	Wheat	Dry	10 g	f