

Dark side

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **29**
- SRM **33.2**
- Style **Dark American Lager**

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 **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **15 min** at **64C**
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód PILZNEŃSKI Strzegom	5 kg (71.4%)	80 %	4
Grain	Strzegom Karmel 600	1 kg (14.3%)	68 %	601
Grain	Abbey Malt Weyermann	1 kg (14.3%)	75 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	60 min	13.3 %
Aroma (end of boil)	Saaz (Czech Republic)	25 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	300 ml	---