2C. International Dark Lager

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **20**
- SRM **15.9**
- Style **Dark American Lager**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **3 %**
- Size with trub loss **17.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **19.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **59.4C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **19.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.8 kg *(48%)*	80 %	4
Grain	Strzegom Wiedeński	1.8 kg *(48%)*	79 %	10
Grain	Carafa III	0.15 kg *(4%)*	70 %	1034

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	90 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
OYL-071 Lutra	Ale	Slant	100 ml	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCO3	4 g	Mash	60 min