

Czeska dupa

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **28**
- SRM **16.6**
- 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 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **16.7 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.5 liter(s)** of strike water to **57.4C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (47.8%)	81 %	4
Grain	Monachijski	1.6 kg (38.3%)	80 %	16
Grain	Karmelowy żytni Strzegom	0.4 kg (9.6%)	75 %	150
Grain	Carafa II	0.18 kg (4.3%)	70 %	812

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	25 g	60 min	8 %
Aroma (end of boil)	Saaz (Czech Republic)	15 g	15 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M54 Californian Lager	Lager	Dry	10 g	Mangrove Jack's