

## Dura lex sed lex 1.0 (SMaSH)

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **44**
- SRM **3.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **9 %**
- Size with trub loss **12 liter(s)**
- Boil time **60 min**
- Evaporation rate **16 %/h**
- Boil size **16 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **80 C**, Time **1 min**

### Mash step by step

- Heat up **10 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Extra Pale Ale	3 kg (100%)	80 %	4

Mieszanie i kontrola temperatury co 15 min.

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition (GER - 2019)	25 g	60 min	4.3 %
Boil	Hallertau Tradition (GER - 2019)	25 g	30 min	4.3 %
Boil	Hallertau Tradition (GER - 2019)	25 g	15 min	4.3 %
Boil	Hallertau Tradition (GER - 2019)	25 g	1 min	4.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

Drożdże uwodnione w 100 ml wody.

## Extras

Type	Name	Amount	Use for	Time
Other	Woda zacieranie	10000 g	Mash	71 min
Saguaro - woda źródlana niegazowana (A-5) Aniony: HCO <sub>3</sub> - 240 mg/L SO <sub>4</sub> - 85 mg/L Cl - 20 mg/L  Kationy: Na - 7 mg/L Mg - 15 mg/L Ca - 95 mg/L  7,45 pH				
Other	Woda wysładzanie	10000 g	Mash	71 min
Saguaro - woda źródlana niegazowana (A-5) Aniony: HCO <sub>3</sub> - 240 mg/L SO <sub>4</sub> - 85 mg/L Cl - 20 mg/L  Kationy: Na - 7 mg/L Mg - 15 mg/L Ca - 95 mg/L  7,45 pH				
Water Agent	Kwas fosforowy	2 g	Mash	71 min
Woda do zacierania 6,06 pH. Po 15 min zacierana 5,45 pH.				
Water Agent	Kwas fosforowy	3 g	Mash	71 min
Woda do wysładzania 5,6 pH.				
Fining	Whirlfloc T	1 g	Boil	5 min
Pół tabletki.				

## Notes

- Dura lex sed lex - surowe prawo ale prawo.  
*Jan 2, 2021, 9:53 PM*