

Facts & Figures

Reference analysis in %									
Material	C	Si	Mn	Cr	Mo	Ni	V		tempered
ES ATLAS ⁴²	0.25	0.25	1.50	2.00	0.70	0.60	0.10	+ trace elements	38 – 42 HRC
1.2311	0.40	0.30	1.50	1.90	0.20	-	-	-	950 – 1100 N/mm ² ca. 30 HRC
1.2738	0.40	0.30	1.45	1.95	0.20	1.10	-	-	950 – 1100 N/mm ² ca. 30 HRC

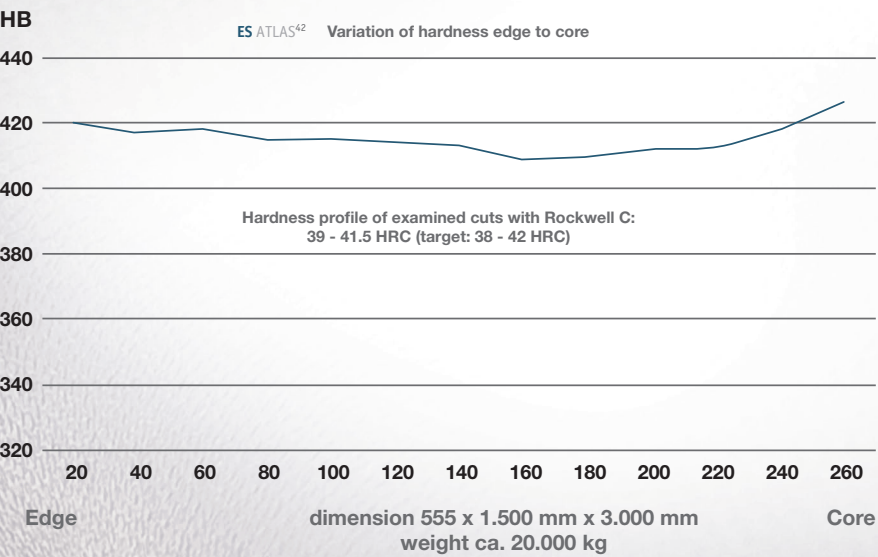
Heat Conductivity [W/mK]

Material	20 °C	200 °C
ES ATLAS ⁴²	38.0	40.0
1.2311	34.5	33.5
1.2738	35.5	31.0

Depiction of Toughness



Full Quenching and Tempering



EschmannStahlgrades
ES ATLAS⁴²

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Products



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ES ATLAS 42 – An extraordinary polishable, pre-annealed material

With this new special steel **ES** ATLAS 42 EschmannStahl offers a high-performance material which perfectly combines high degrees of ductility and hardness. The fields of applications are diverse - **ES** ATLAS 42 is suitable for plastic molding inserts as well as for metal forming. It is avaiable up to a thickness of 655 mm.

This material offers:

- **Top polishability for a high-end surface quality**
- **High ductility for long service lifes**
- **Good wear resistance**
- **Fully and evenly quenched and tempered**
- **High graining suitability**
- **Higher thermal conductivity**

” **ES** ATLAS⁴² –
Plastic moulds
may wear out
but never draw! “

Extremely versatile

ES ATLAS 42 is perfectly suitable for many methods of surface treatments. Due to its high polish reliability it easily fulfils the requirements for an optimal diffusion coating. The high tough-ness (38-42 HRC) of the material supports the effect. Moreover treatments like nitriding, hard chromium plating, galvanising, PVD-coating or laser-hardening are possible. The service life of the tool and the output will increase.

Superb polishability

ES ATLAS 42 is highly homogenous. Due to this it can be polished to a degree of polishing re-liability up to a grain size of 1000. Thereby **ES** ATLAS 42 sets new standards for conventionally produced tool steels.



For special surfaces and optimal stability



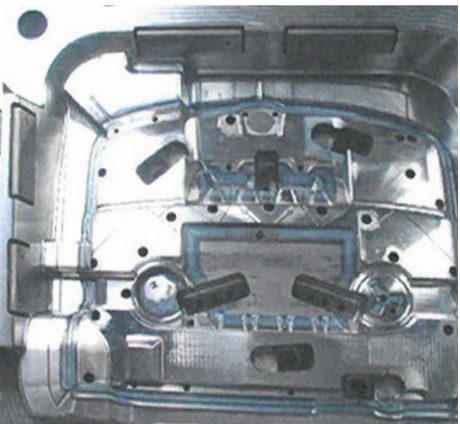
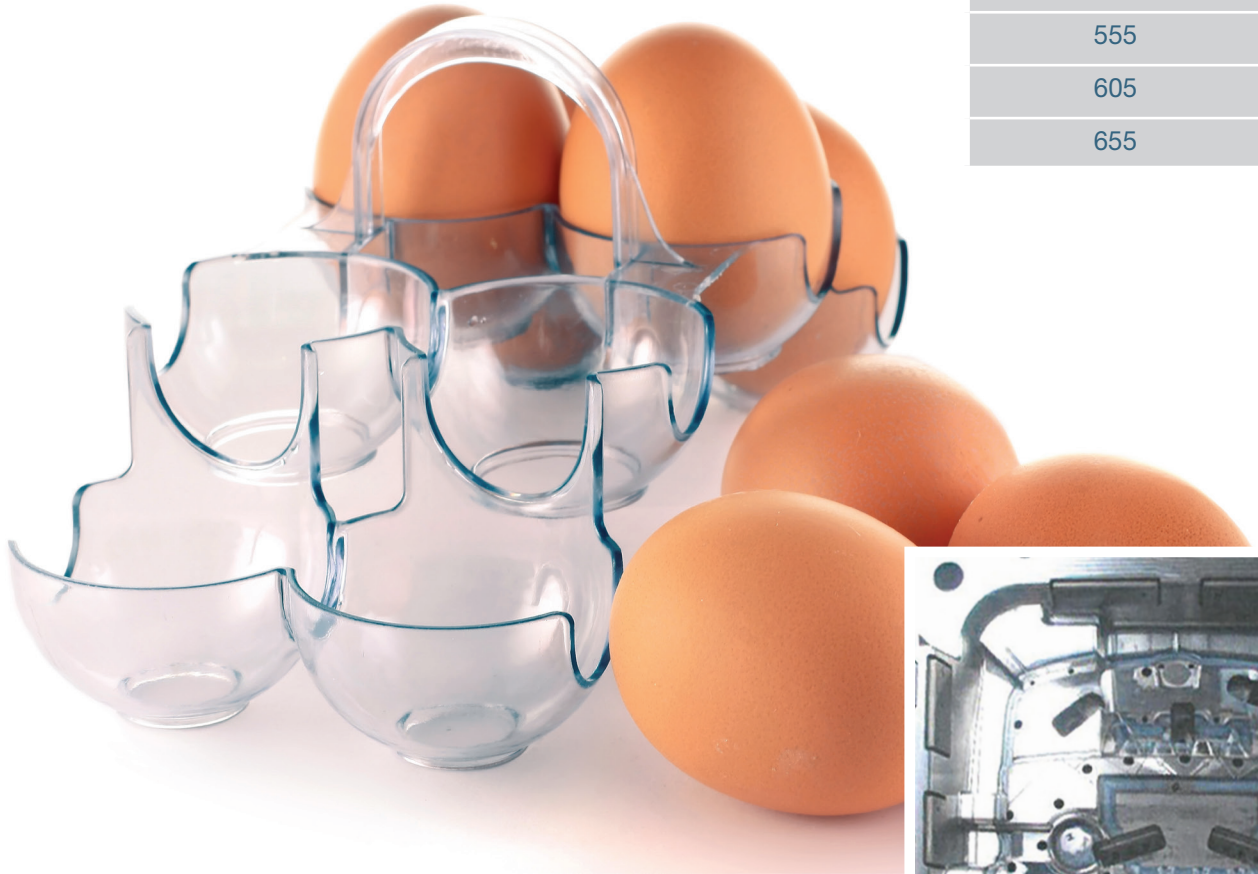
Particularly suitable for manufacturing transparent components with high surface requirements.



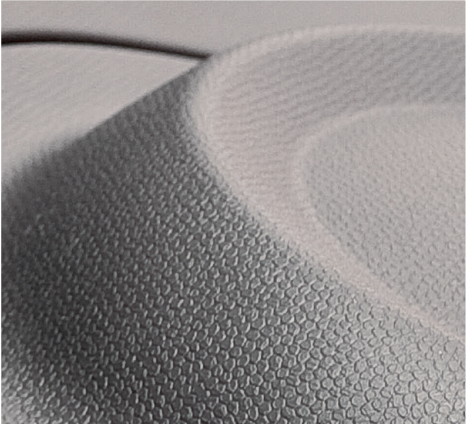
ES ATLAS 42 available up to thickness of 655 mm.

Bearing mesurements:

Thickness	Width	Length
205	1650	3000
255	1650	3000
305	1650	3000
355	1850	3000
455	1850	3000
555	1850	3000
605	1650	3000
655	1010	3000



Longer durability and higher output



Excellent graining properties