



25 - 27 October / Ekim 2018

TÜYAP Fair, Convention & Congress Center, İstanbul

TüDöKSAD Akademi **10. Uluslararası Döküm Kongresi / 10th International Foundry Congress** by Tudöksad Academy

In conjunction with **ANKIROS / ANNOFER / TURKCAST** fairs

«Industrial Experience and High Level of Benefits of New Bentonite Grade»

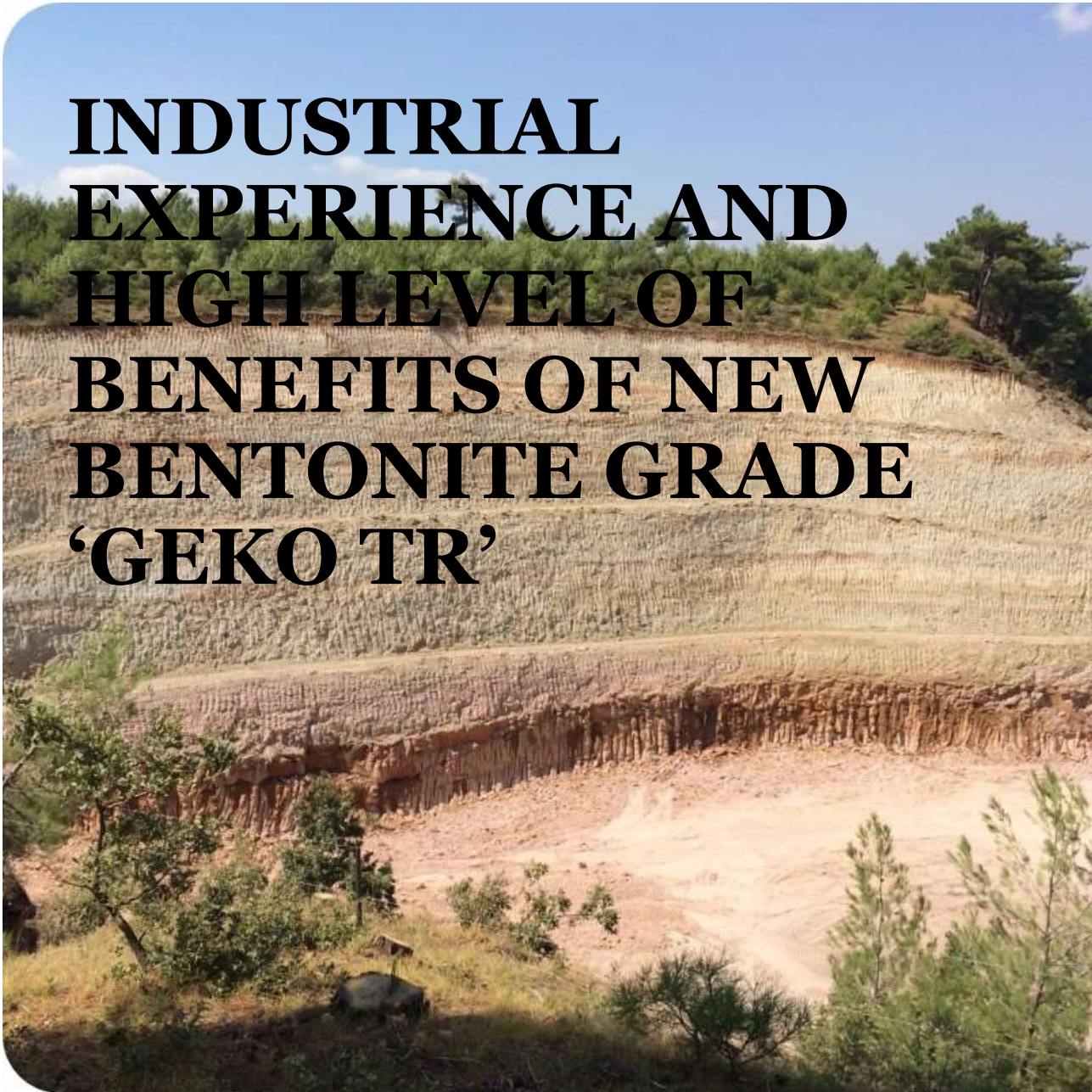
«Döküm Prosesleri İçin Özel Geliştirilmiş Bentonit Sınıfı ve Uygulama Örnekleri»

**Iñigo Iturritza González, Derya Özer
(Clariant)**

7.Oturum / 7th Session

Oturum Başkanı / Session Chairman: Dr. Kazım Tur (Atılım Üniversitesi)





**INDUSTRIAL
EXPERIENCE AND
HIGH LEVEL OF
BENEFITS OF NEW
BENTONITE GRADE
'GEKO TR'**

Public

Iñigo Iturriza
BU FM
BG Foundry Additives
27.10.2018

what is precious to you?

Who is the best athlete?

Kendra Harrison: 100m hurdles



Valerie Adams: Shot Put



Francine Niyonsaba: 800 m



Ekaterini Stefanidi: Pole Vault



The best is usually the most complete

Naffisatou Thiam

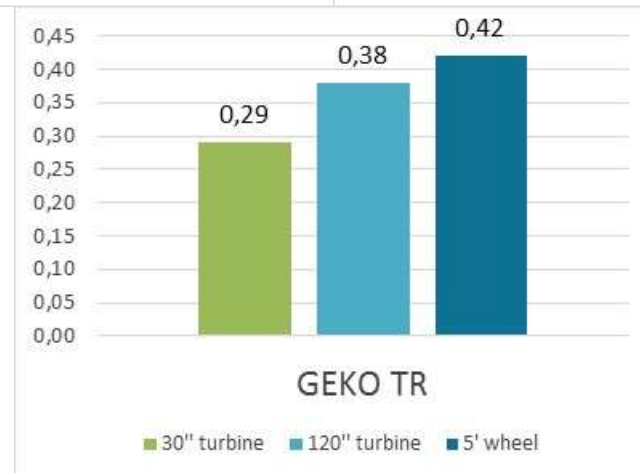
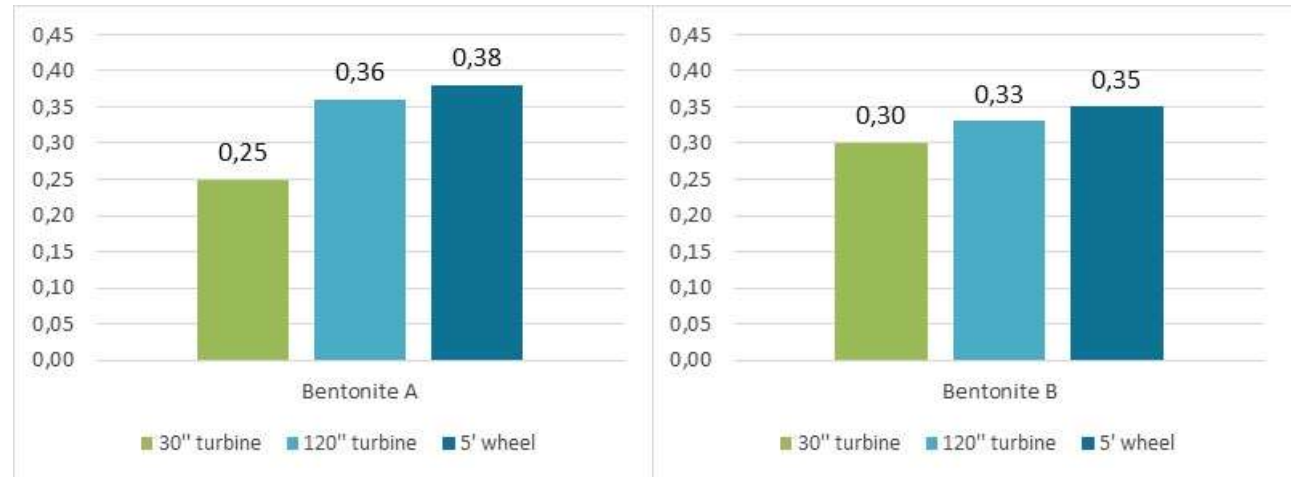


Heptathlon:

100 metres hurdles
High Jump
Shot put
200 metres
Long Jump
Javelin throw
800 m

Several tests for a complete bentonite: Mixing Speed & Strength

WTS, 8% Bentonite with different mixing time & energy



GEKO TR combines high mechanical properties with low mixing energy demand

Several tests for a complete bentonite: Thermal Stability

WTS, 5% Bentonite Room temperature & 550°C 30'

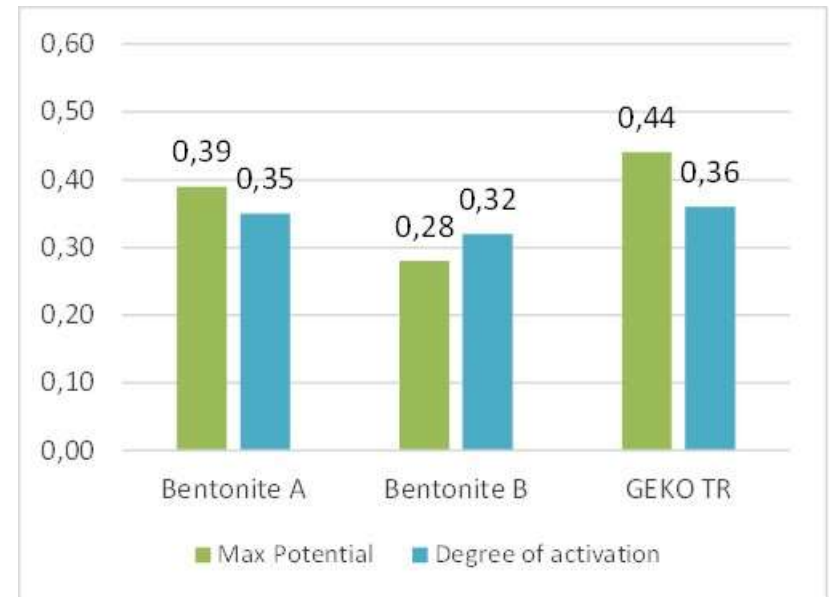
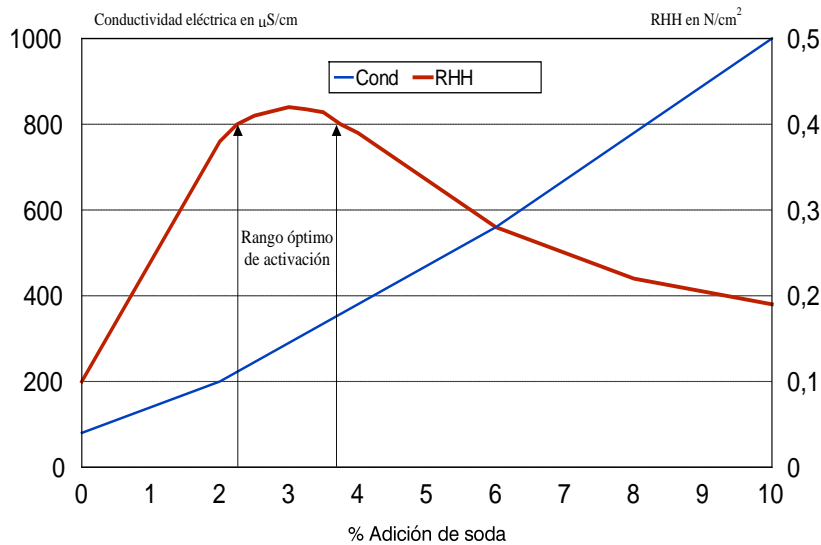


Thermal Stability should not be too low to avoid too much burnt bentonite

But also not too high to enable a good shake-out

Several tests for a complete bentonite: Maximum Potential & Degree of activation

WTS, 5% Bentonite, 15' mixing time, 5% Water content & +1% Soda ash



“But we produce Castings, not Green Sand”

The good pot is tested under fire



Industrial Trial Results in Atik Metal, GEKO TR Introduction

Date	Water content %	Compact %	GCS N/cm ²	MB Bentonite %	Grain Size AFS Nr	Spec. Cons. Kg/t Li Fe
2017	3,57	42	19,8	8,06	56	45
2018/03	3,49	47	21,7	7,5	56	39,7

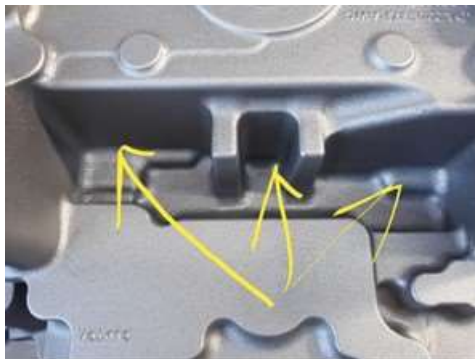
Improvements:

- Compactability >45%
- Humidity <3,5% and stable
- Higher GCS, >21,5 N/cm²
- Higher WTS, >0,32 N/cm²
- Specific Consumption <40 kg/t LiFe



Industrial Trial Results in Atik Metal: Improvements

Date	Water content %	Compact %	GCS N/cm ²	MB Bentonite %	Grain Size AFS Nr	Spec. Cons. Kg/t Li Fe
2017	3,57	42	19,8	8,06	56	45
2018/03	3,49	47	21,7	7,5	56	39,7
2018/07	3,5	46	21,5	8	62	42



Improvements:

- Excellent Dimensional Stability
- Casting Surface, no penetration
- Specific Consumption

Algınız için teşekkürler



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