

Saeed4522@yahoo.com

**composite bushing – Transformer bushing – silicon rubber bushing**

[ ].

(Composite materials)

...

(Spacer)

(insulators)

Composite material

Composite material

[ ]

.RTV

open modular

.(LSR)

HTV

Single shot injection

.HTV

System modular

)

(

(creepage distance)

FRP

$$( ) \ k_n = \frac{L}{H}$$

)

(

(Creepage (overall length)

20Nf 250 distance)

/ 30Nf 250 /

( ) 20/.4 kv

( ) 33/.4 kv

20/.4 kv Standard Transformers									
									(KVA)
%	% /	%	% /	%	% /	% /	% /	% ,	

--	--	--	--	--	--	--	--	--	--

20/.4 kv

- ( )

33/.4 kv Standard Transformers									
									(KVA)
%	% /	% /	% /	% /	% /	% /	% /	% /	

33/.4 kv

- ( )

)

(

- 1- Freeman, W.B. Orbaeck, T. Moal, E., AABB Power T & D Corp.,  
Grensburg, PA, "Development of cononical silicone rubber bushings to  
replace porcelain on SF<sub>6</sub> circuit breakers" , Transmission and Distribution  
conference, 1994., Proceedings of the 1994 IEEE Power Engineering  
society Meeting Date: 04/10/1994-04/15/1994, Publication Date: 10-15 Apr  
1994, Location: Chicago, IL, USA, pp.659-665.
- 2- Engelbrecht, C.s.; Hartings, R.; Tunell, H.; Engstrom, B.; janssen,  
H.; Hennings, R., "Pollution tests for coastal conditions on an 800 kv  
composite bushing" , IEEE Transaction on power Deliverys, volume 18,  
Issue 3, July 2003, pp. 953-959.
- 3- Masoud Farzaneh, jean-Francois Drapeau, Changiz Tavakoli,  
Michel, Quebec "Laboratory investigations and methods for evaluating the  
flashover performance of outdoor insulators on a large scale ", Hydro-  
Atmospheric d'Hydro-Quebec (IREQ) (Montreal, Canada), Network  
(Varennes, canada), IWAIS 2002
- 4- Dong Chang park, seopng su kim, jong woon kim, Dai Gil Lee,  
"Axiomatic design of comosit hemispherican bearing", proceedings of

ICAD 2004, The Third International Conference on Axiomatic Design seoul

– June 21-24, 2004.

- 5- R.Omranipour, L.H.Mayer, “Tracking and Erosion resistance of RTV Silicone Rubber: Effect of filter particle size and loading”, Annual report conference on electrical insulation and dielectric phenomena, 2002
- 6- Zhidong Jia and Zhicheng Guan, “Discharge along hydrophobic and hydrophilic surface”, IEEE, 2002
- 7- IEEE std 957, “IEEE guide for cleaning insulators”, 1995.